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Reconciliation of Soviet and Western Foreign Trade Statistics

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Contents

Tables

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Summary

1. Discrepancies between Soviet and Western trade statistics lead to balance of trade figures that differ substantially. Western data put the cumulative Soviet deficit with the nine Western countries covered in this study[1] at US $2 billion in 1960-75. Soviet statistics, on the other hand, show the Soviets in the red by nearly $8 billion. The immediate cause of this anomaly is that Western imports generally exceed the USSR's exports by a wide margin, while the value of Soviet imports has usually been quite a bit higher than the value that the nine countries report for exports to the USSR. A detailed examination of the trade statistics and reporting practices shows that reasons for these differences can be found and that the Soviet statistics are a reliable guide to the USSR's hard-currency position.

2. Discrepancies of this sort can be explained by differences in valuation, in coverage, and in the method used to identify trading partners. The valuation differences are important, at least with respect to Western imports from the USSR.

- The Western countries—except for the United States and Canada—value imports c.i.f. (cost, insurance, and freight) while the USSR reports exports f.o.b. (free on board).

- Western exports usually are valued f.o.b. at the frontier of the exporting country as are Soviet imports, so the match is better on this part of Soviet-Western trade.

3. Soviet and Western coverages of foreign trade do not mesh because of (1) differences in definitions of commodity trade, (2) variations in the systems used to record trade flows, and (3) omissions.

- Soviet data include the sale or purchase of "know-how and services of a productive nature," while Western data cover only merchandise trade.

1. The countries are the United States, Belgium-Luxembourg, Canada, France, Italy, Japan, the Netherlands, the United Kingdom, and West Germany.

- The Western countries—except for the US, Japan, the United Kingdom, and Canada—use the special trade system, which excludes reexports. Soviet imports, meanwhile, reflect reexports, since the USSR reports its trade under the general system. The USSR, moreover, employs a broader definition of reexports than the West by defining as imports goods bought abroad on Soviet account and exported to other countries before entering the USSR.

- Although Soviet and Western data seem to be free of omissions on the aggregate level, the commodity breakdown of trade reported by the USSR is not exhaustive. Goods, such as diamonds and precious metals, are reported only as part of "unspecified" trade residuals.

4. Many of the Western countries differ from themselves as well as the USSR in the rules that they use to identify trading partners. As a result, bilateral balances of trade are affected profoundly. Imports can be assigned according to the country of first consignment (the country from which the goods are first shipped to the reporting country without an intervening commercial transaction), the country of production, or the country from which the goods were last shipped. For exports, either the country of last consignment (the last country to which the goods were shipped by the exporting country without any intervening commercial transactions) or the country of consumption is used to identify trading partners.

- The United Kingdom, Belgium-Luxembourg, and the Netherlands use the system of first consignment for imports and last consignment for exports. Canada employs the same system for identifying the definition of its exports, but assigns its imports to the country from which the goods were shipped directly to Canada.

- The USSR—like the US, West Germany, and Italy—identifies imports with the country of production and exports with the country of consumption. In some cases, however, the producing and consuming countries are unknown, so trade is recorded according to first and last consignment.

5. Reconciliation of Soviet export statistics on a disaggregated basis with the import statistics of each of the nine Western countries in 1970-74 shows that:

- C.i.f. valuation of imports largely explains why French, Italian, Japanese, UK, and West German imports exceed corresponding Soviet exports to these countries.

- The imbalance is offset somewhat when countries use the special reporting system, which excludes imports of Soviet goods that are subsequently reexported. Evidence for France and Italy strongly suggests that since 1973, reexports of Soviet goods–particularly petroleum products–have played a prominent role in narrowing the gap between their imports and Soviet exports. In fact, Italian imports from the USSR fell short of Soviet exports to Italy in 1975.

- Sharp price increases for Soviet raw materials beginning in 1973 led to a relative decline in transport and insurance costs, eroding the relative difference between Western c.i.f. valuations and Soviet f.o.b. valuations.

- Acquisition of Soviet fuels, minerals, and metals for reexport are not counted by the Netherlands and Belgium-Luxembourg as imports, so exports by the USSR are larger than corresponding Dutch and Belgium-Luxembourg imports, despite the c.i.f.-f.o.b. margin.

- The USSR's failure to identify the US as the final destination for all Soviet goods that find their way to the United States is the reason that imports from the Soviet Union reported by the United States outstrip exports to the United States reported by the USSR.

- Soviet exports to Canada exceed Canadian imports from the USSR because Canada identifies the country of last consignment as the exporting country. Canada therefore designates third countries as the source of some imports originating in the USSR.

6. Turning to Soviet imports and Western exports:

- The USSR counts technology costs associated with machinery and equipment deliveries as imports. This practice is the major factor tending to make Soviet imports larger than corresponding French, Italian, UK, and Japanese exports.

- The broader definition of reexports used by the USSR is responsible for Soviet imports from the US and Canada being larger than US and Canadian exports to the USSR in recent years. American grain bought on Soviet account and shipped to other countries–probably Eastern Europe–appears as imports from the US in Soviet foreign trade books. As for Canada, Soviet purchases of Canadian grain and wheat flour for delivery to Cuba are recorded as Soviet imports and then Soviet exports; Canada defines them as exports to Cuba.

- West German exports to the USSR, on the other hand, generally are larger than Soviet imports, mainly because the USSR reports other countries as the source of some German machinery and equipment.

7. The findings of the study demonstrate that, all things considered, Soviet trade data are a far better guide to the USSR's hard-currency trade position than Western data. Taken in the aggregate, Western imports overstate Soviet exports while Western exports understate Soviet imports. Imports reported by the nine Western countries in 1970-72 inflate Soviet export earnings by roughly 18 to 19 percent because of transport and insurance costs. Actually, the effect of these costs is partially offset by the exclusion from Western imports of Soviet goods that are bought and then reexported–4 or 5 percent of Soviet exports to these nine countries. The net upward bias is thus only about 14 percent. In 1973-74, the percentage gap between Western imports and Soviet exports narrowed. The c.i.f.-f.o.b. difference in the valuation of Soviet exports declined to about 9 percent owing to a sharp jump in Soviet export prices, and the relative importance of reexports of Soviet goods–particularly oil products–rose slightly. Consequently, the actual difference between Western imports and Soviet exports fell to 3 percent of Soviet exports.

8. Western statistics also fail to record the total hard-currency cost of Soviet imports. Reexports of Western goods that are missing from Western data but appear in USSR statistics account for roughly 2-3 percent of Soviet imports. USSR data, meanwhile, must be adjusted downward by roughly 2 percent because of the inclusion of technology imports, assuming their costs are included in the service account.

9. Soviet data, even after discounting the technology imports, show a USSR hard currency trade deficit for 1970-74 with the nine Western countries of $2.5 billion, compared with a Soviet deficit of only $0.6 billion tallied from Western data.

10. Looking at the USSR's trade balance with US in 1970-74, Soviet data place the deficit at $2.3 billion (adjusted for technology imports), while the United States has the Soviets short by only $1.8 billion. The difference stems from US imports generally exceeding Soviet exports and USSR imports overshadowing US exports. As already mentioned, the USSR's failure to identify the US as the country of final destination for all Soviet goods reaching the US--especially petroleum products--is largely responsible for the imbalance between Soviet exports and US imports. The gap, which was relatively small before 1973, jumped to $28 million in 1973 and in 1974 shot up to $116 million--equivalent to one-half the value of USSR exports to the US. Roughly three-fourths of the $116 million difference can be explained by US imports of Soviet oil not appearing as exports to the US in USSR trade accounts. The remaining $26 million probably is accounted for by Soviet platinum and platinum group metals and diamond exports.

11. On the other side of the balance, Soviet imports traditionally have exceeded US exports because all US goods ultimately reaching the USSR have not been identified in US trade books as exports to the USSR. The broader definition of Soviet reexports and the inclusion of technology imports in Soviet trade data have helped to inflate the value of USSR imports in recent years. Roughly 5 percent of US grain bought on Soviet account in 1972 was shipped to other countries--most likely Eastern Europe. In 1974, Soviet grain purchases were higher than US exports by more than 25 percent, while technology imports totaled $18 million. Consequently, Soviet imports exceeded US exports by $137 million.

Reconciliation of Soviet and Western Foreign Trade Statistics

DISCUSSION

". . . statistics on foreign trade and gold movements are exceedingly poor, and as a result large parts of the theory of international trade are open to doubt. This presents a real dilemma: economic theory has unquestionably postulated a fine structure in the international field; yet we cannot describe this structure adequately by relying on the data with which we are confronted."

Oskar Morgenstern,
On the Accuracy of Economic Observations

Introduction

12. There are significant differences between official Soviet foreign trade statistics and those of the USSR's hard-currency trading partners.[2] Soviet export values traditionally have fallen short of Western import values while Soviet imports have exceeded Western exports. Understandably, questions have arisen concerning the use of Soviet data, especially for obtaining USSR hard-currency balances. Critics of Soviet data, such as Marshall Goldman, claim the data are misleading and minimize the hard-currency earning ability of the USSR. According to Goldman, "most of those who have been warning about the Soviet trade imbalances have been using Soviet figures, which ... tend to understate Soviet trade surpluses and overstate the trade deficit."[3] Goldman places the blame for the discrepancies on Soviet data, since "for its own special reasons, the USSR omits from its statistics the export of several important items, including diamonds and gold. Consequently, calculations which rely instead on the statistics published by the countries that trade with the USSR show the Soviet Union in a much more favorable light."[4]

13. At first blush, the evidence indeed seems to support these conclusions. Soviet data put the cumulative USSR hard-currency deficit with its major Western trading partners for 1960-75 at $8 billion, whereas Western data show the USSR short by only $2 billion. Previous studies have uncovered probable explanations for the discrepancies between Soviet and Western trade data—for example, treatment

2. Soviet hard-currency trading partners are those countries—more than 90—that have multilateral trading arrangements with the USSR.

3. Marshall I. Goldman, "Who Profits More from US-Soviet Trade?" *Harvard Business Review*, November-December 1973, p. 84.

4. Marshall I. Goldman, "Letters to the Editor," *New York Times*, 17 April 1975.

of exchange rates, reexports, and valuation methods–but have not measured their influence. Nor have they reconciled Soviet and Western trade data by country or on a commodity basis.

14. This paper attempts to measure the relative importance of the various factors responsible for the differences between Soviet and Western trade statistics, and, when necessary, the analysis is carried out in some detail. The justification for the effort spent on the problem is simple: we wish to know how, in fact, to determine the USSR's hard-currency position. The paper itself is divided into three major sections and a set of conclusions. The first major section of this paper compares Soviet trade data on an aggregate level with trade statistics of the USSR's major Western trading partners–West Germany, France, Italy, the United States, Japan, the United Kingdom, the Netherlands, Belgium-Luxembourg, and Canada.[5] These countries account for 86 percent of the USSR's hard-currency trade with the developed West and 73 percent of its total hard-currency trade.[6] The next section discusses the sources of the discrepancies, evaluates their influence, and introduces a framework for reconciliation. In the following section, Soviet and Western data are reconciled by country. Finally, the country detail provides the basis for conclusions regarding the nature of the discrepancies in the trade data and the appropriate way to look at the Soviet trade balance.

15. A major share of the analysis is based on two concordances that were developed linking Standard International Trade Classification (SITC) categories with the appropriate Common Foreign Trade Nomenclature (CTN) codes (see Appendixes A and B). One of the concordances is on a 1-digit CTN level, while the other is more detailed and covers the commodities reported in the Soviet foreign trade handbook.[7] The concordances convert SITC to CTN codes, instead of from CTN to SITC, to focus on Soviet data and overcome deficiencies in USSR reporting.[8] In addition, by using the 1-digit CTN concordance, one can explore the completeness of Soviet reporting on a single-digit level, something not possible with a concordance that links CTN to SITC codes.

5. Western data are from UN or OECD sources. Soviet statistics are from annual USSR foreign trade handbooks. Under the terms of the Belgium-Luxembourg Economic Union, the trade statistics of the two countries are reported as those of a single customs territory.

6. About 40 percent of the USSR's trade with less developed countries is in hard currency.

7. These concordances differ from the ones developed by the UN and Paul Marer, *Soviet and East European Foreign Trade*, 1964-69. The latter concordances convert CTN codes to SITC codes.

8. Commodity data usually are not given at the lowest level in Soviet trade handbooks; consequently, the difficulty of assigning CTN codes to corresponding SITC codes is increased. For example, exports of tools (CTN 174) to West Germany cannot be allocated among the appropriate SITC categories 71953, 7296, and 86193, since the Soviets do not publish a more detailed breakdown of CTN 174.

The Problem: Comparison of Total Trade Reported by the USSR and by Western Countries

Soviet Exports

16. Soviet figures on the value of exports have often fallen far short of corresponding Western imports. A comparison of Soviet and Western data for 1960-75 (see Table 1) shows that for five of the nine countries–West Germany,

Table 1

Ratio of Western Imports to Soviet Exports for Soviet Trade with Nine Western Countries

Percent

	US	Belgium-Luxembourg	Canada	France	Italy	Japan	Netherlands	UK	West Germany	Total
1960	93	98	63	126	122	114	91	109	135	116
1961	95	105	55	123	114	129	84	105	120	112
1962	92	100	65	130	126	130	87	111	137	120
1963	85	92	62	136	129	131	112	118	123	122
1964	106	92	50	133	110	138	69	114	135	118
1965	125	91	68	132	123	130	82	114	134	121
1966	107	90	74	132	123	126	61	106	130	114
1967	105	95	94	129	118	129	61	112	136	118
1968	135	75	102	133	122	117	63	103	136	114
1969	85	70	97	145	107	129	39	111	146	111
1970	113	94	105	145	148	127	38	114	133	118
1971	95	94	91	121	115	118	38	111	125	109
1972	103	80	68	126	118	129	43	125	131	114
1973	115	67	82	118	106	128	37	111	110	105
1974	150	67	55	112	102	119	45	102	105	101
1975	133	87	63	112	97	126	71	108	101	104
Mean percent deviation[1]	9	-13	-25	28	18	26	-36	11	28	14
Standard deviation[2]	18	11	17	10	12	6	22	6	13	6

1. The average percentage difference between Western imports and Soviet exports.
2. Measures the dispersion of annual percent differences (the square root of the sum of the squared deviations about the mean, divided by the number of observations).

France, the United Kingdom, Japan, and Italy–Soviet exports are less than the corresponding Western imports in at least 15 of the 16 years examined. French and West German import data differ most from USSR statistics–averaging 28 percent more than Soviet exports–while the UK figures are the closest to Soviet figures for this group of countries. The most notable departure from past trends is the decrease in the percentage gap between Soviet export data and West German and Italian import statistics beginning in 1973. Indeed, Italian import figures for 1975 were no longer greater than Soviet exports, as they had been for the past 15 years.

17. For the remaining countries, Soviet exports are:

- Greater than corresponding US imports in 6 of the 16 years.
- Greater than corresponding imports from Canada and Belgium-Luxembourg in 14 of the 16 years.
- Greater than corresponding Netherlands imports in 15 of the 16 years.

The disparity between Netherlands imports and Soviet exports–36 percent–has been the largest and the least consistent.

Soviet Imports

18. The comparison of Western exports and Soviet imports reveals a much greater consistency among countries and over time than does the comparison of Western imports and Soviet exports. Western export figures are less than Soviet import data in at least 13 of the 16 years for all countries except West Germany (see Table 2). Netherlands exports, on the average, differ most from Soviet imports,

Table 2

Ratio of Western Exports to Soviet Imports for Soviet Trade with Nine Western Countries

Percent

	US	Belgium-Luxembourg	Canada	France	Italy	Japan	Netherlands	UK	West Germany	Total
1960	63	86	85	89	87	98	57	96	93	89
1961	91	81	53	91	93	98	68	95	114	94
1962	74	77	115	89	100	102	66	100	99	95
1963	82	46	79	91	84	96	64	119	101	92
1964	90	67	90	93	93	94	57	103	96	92
1965	70	73	72	63	96	95	98	86	108	84
1966	64	67	86	47	94	95	65	82	94	81
1967	96	63	85	82	81	95	70	90	112	88
1968	102	61	65	87	86	97	56	92	113	89
1969	90	64	28	82	91	102	65	97	116	93
1970	104	64	75	86	98	99	57	94	113	94
1971	113	84	83	82	102	95	59	93	95	92
1972	98	93	84	80	94	96	78	95	100	93
1973	86	91	99	95	86	96	61	98	115	95
1974	82	87	78	92	87	107	73	97	101	93
1975	90	84	76	103	93	93	102	91	104	95
Mean percent deviation[1]	-13	-26	-26	-16	-8	-2	-31	-4	5	-9
Standard deviation[2]	13	13	22	13	6	4	13	8	8	4

1. The average percentage difference between Western exports and Soviet imports.
2. Measures the dispersion of annual percent differences (the square root of the sum of the squared deviations about the mean, divided by the number of observations).

while Japanese exports are the closest to the corresponding Soviet imports. In terms of variation over the years, the ratio of Western exports to Soviet imports has fluctuated least for Japanese trade and most for Canadian trade with the USSR. For West Germany, Soviet imports are less than FRG exports–on the average by 5 percent–in 11 of the 16 years.

The Soviet Balance of Trade

19. Because of the discrepancies between Soviet and Western trade data, the Soviet hard currency balance of trade in Soviet statistics is very different from balances estimated from the statistics of the USSR's Western trading partners (see Table 3). Using Soviet data for 1960-75, the USSR has a trade *deficit* with the

Table 3

Soviet Balance of Trade with Nine Western Countries

Million US $

	Soviet exports		Soviet imports		Balance of trade	
	Soviet Data	Western Data	Soviet Data	Western Data	Soviet Data	Western Data
1960	671.9	776.7	701.8	621.5	-29.9	155.2
1961	777.8	872.5	749.8	707.3	28.0	165.2
1962	786.7	946.2	835.2	790.7	-48.5	155.5
1963	831.5	1,012.4	922.3	844.4	-90.8	168.0
1964	901.9	1,067.5	1,201.2	1,105.0	-299.3	-37.5
1965	1,044.1	1,262.6	1,060.6	896.1	-16.5	366.5
1966	1,251.1	1,428.5	1,280.8	1,043.8	-29.7	384.7
1967	1,437.1	1,693.4	1,245.1	1,099.3	192.0	594.1
1968	1,583.5	1,802.1	1,548.3	1,372.6	35.2	429.5
1969	1,713.7	1,910.7	1,809.3	1,680.7	-95.6	230.0
1970	1,737.2	2,052.0	2,008.7	1,894.0	-271.5	158.0
1971	1,990.0	2,159.5	2,158.0	1,995.6	-168.0	163.9
1972	2,177.2	2,492.3	3,248.3	3,028.2	-1,071.1	-535.9
1973	3,839.1	4,016.4	4,860.0	4,595.7	-1,020.9	-579.3
1974	5,778.8	5,842.0	6,065.6	5,666.1	-286.8	175.9
1975	5,619.1	5,870.9	10,438.7	9,883.4	-4,819.6	-4,012.5
Total	32,140.7	35,205.7	40,133.7	37,224.4	-7,993.0	-2,018.7

nine countries in 13 of the 16 years; the cumulative deficit is nearly $8 billion. On the other hand, the USSR has a trade *surplus* in 12 of the 16 years according to Western statistics. As a result of the large 1975 deficit, the cumulative trade balance is in deficit by $2 billion--much less than that recorded in Soviet foreign trade accounts.

20. The difference is the result of Western imports exceeding Soviet exports by roughly 10 percent and an 8-percent gap between Soviet imports and Western exports. Seven of the nine Western countries credited the USSR with a larger cumulative trade balance in 1960-75 than the USSR itself shows. The largest margin occurred in Japanese and Soviet statistics–$1.7 billion; the balance according to French data was $1.3 billion more than the Soviet figure. US statistics show a Soviet trade deficit of $3.7 billion, nearly $1 billion less than in Soviet data. In contrast, USSR trade balances calculated using Dutch and Belgium-Luxembourg data are less than the balances obtained from Soviet foreign trade handbooks.

Sources of Discrepancies Between Soviet and Western Trade Statistics

21. Before the Soviet trade-and-payments position can be assessed with confidence, the reasons for the discrepancies presented in Tables 1 and 2 have to be unraveled. This section of the report discusses some of the underlying factors at work and then introduces a framework for reconciliation.

Survey of General Causes of Differences in Soviet and Western Reporting

Valuation of Exports and Imports

22. Differences in how traded goods are valued are the most obvious causes of disparities between Soviet exports and Western imports. Western countries–except for the United States and Canada–record imports c.i.f. while the USSR reports exports f.o.b.[9] The US generally reports imports based on the "transaction value at the foreign port of exportation"; the cost of loading the goods on the carrier is omitted, and the transport cost to the point of exportation may or may not be included. The value of Canadian imports is based on the selling price f.o.b. point of shipment.

9. The f.o.b. value for exports is the value at which goods are sold by the exporter, including export duties, internal taxes, and similar charges plus the cost of transportation and insurance to bring the goods on to the transporting vehicle at the frontier of the exporting country. The c.i.f. value for imports is the value at which the goods are purchased by the importer plus the cost of transportation and insurance to the frontier of the importing country.

Although valuation discrepancies can also arise when exchange rates are used to convert trade statistics in national currencies to a single currency, they are not addressed in this paper. The UN's conversion of Western trade data to dollars by trade weighted average exchange rates is accepted. (The UN computes an average annual dollar exchange rate for a foreign currency by weighting the monthly rates–or the simple average of the rates in effect during a month–by the trade for that month.) Soviet trade in rubles is converted to dollars using the official Soviet annual ruble/dollar rate prevailing before 1972 and the average of the monthly ruble/dollar rates announced by the USSR since 1972. This computed rate matches the rate reported by the UN for the USSR.

23. Valuation problems encountered in the case of Western imports do not arise on the export side. Western exports–aside from Canadian and US exports–are valued f.o.b. at the frontier of the exporting country, while Soviet imports are valued f.o.b. border of the country of shipment. The US values its exports f.a.s. (free alongside ship), which is equivalent to f.o.b. less the cost of loading the goods on the carrier. Canadian exports are valued either f.o.b. at the point of consignment–where they are loaded aboard a carrier for export–or valued f.o.b. at the port of export, in which case the value would include transport charges to the port.

24. Summing up the effect of these valuation procedures in isolation:

- West German, French, UK, Italian, Netherlands, and Belgian-Luxembourg imports should be larger than Soviet exports.

- US and Canadian imports should be slightly less than Soviet exports.

- West German, French, UK, Japanese, Netherlands, and Belgian-Luxembourg exports should equal Soviet imports.

- US and Canadian exports should be slightly less than Soviet imports.

Differences in Coverage

25. Disparities between trade statistics also stem from differences in the coverage of foreign trade data caused by differences in (1) the definition of commodity trade, (2) the systems used to record trade flows, and (3) omissions, conscious or otherwise.

26. ***Definitions.*** Western data, for the most part, include only merchandise trade–goods that add to or subtract from the stock of material resources in a country as a result of their movement into or out of the country. The USSR, on the other hand, includes the sale and purchase of patents, licenses, repairs, and "services of a productive nature" in its trade statistics. Payment for these kinds of services and "know-how" are treated as invisibles by the West rather than as part of the merchandise account.

27. ***Reporting Systems.*** The comprehensiveness of data on trade flows depends upon the reporting system—general or special—that the countries use. Under the *general trade system*, all goods entering a country—except for transit trade—are considered imports. The *special trade system*, in contrast, accepts as imports goods entering bonded processing establishments but does not count goods entering bonded warehouses or free zones unless and until they are withdrawn from such warehouses or free zones for domestic use. The general trade system counts all goods leaving the country, across the national frontier, as exports. The special trade system, on the other hand, records trade that is cleared through customs and goods leaving bonded processing plants but excludes reexports from bonded warehouses and free zones (Figure 1).

28. West Germany, France, Italy, Belgium-Luxembourg, and the Netherlands use the special trade system, while the United States, Canada, Japan, and the United Kingdom use the general system. The USSR also records trade under the general system but employs a broader definition of reexports than the West. It includes commodities that physically enter or leave the USSR (with the exception of transit goods) and goods of foreign origin acquired by Soviet foreign trade organizations abroad and exported to other countries without shipment to the USSR.

29. The implications of the various combinations of trade reporting systems for USSR-Western statistics are as follows:

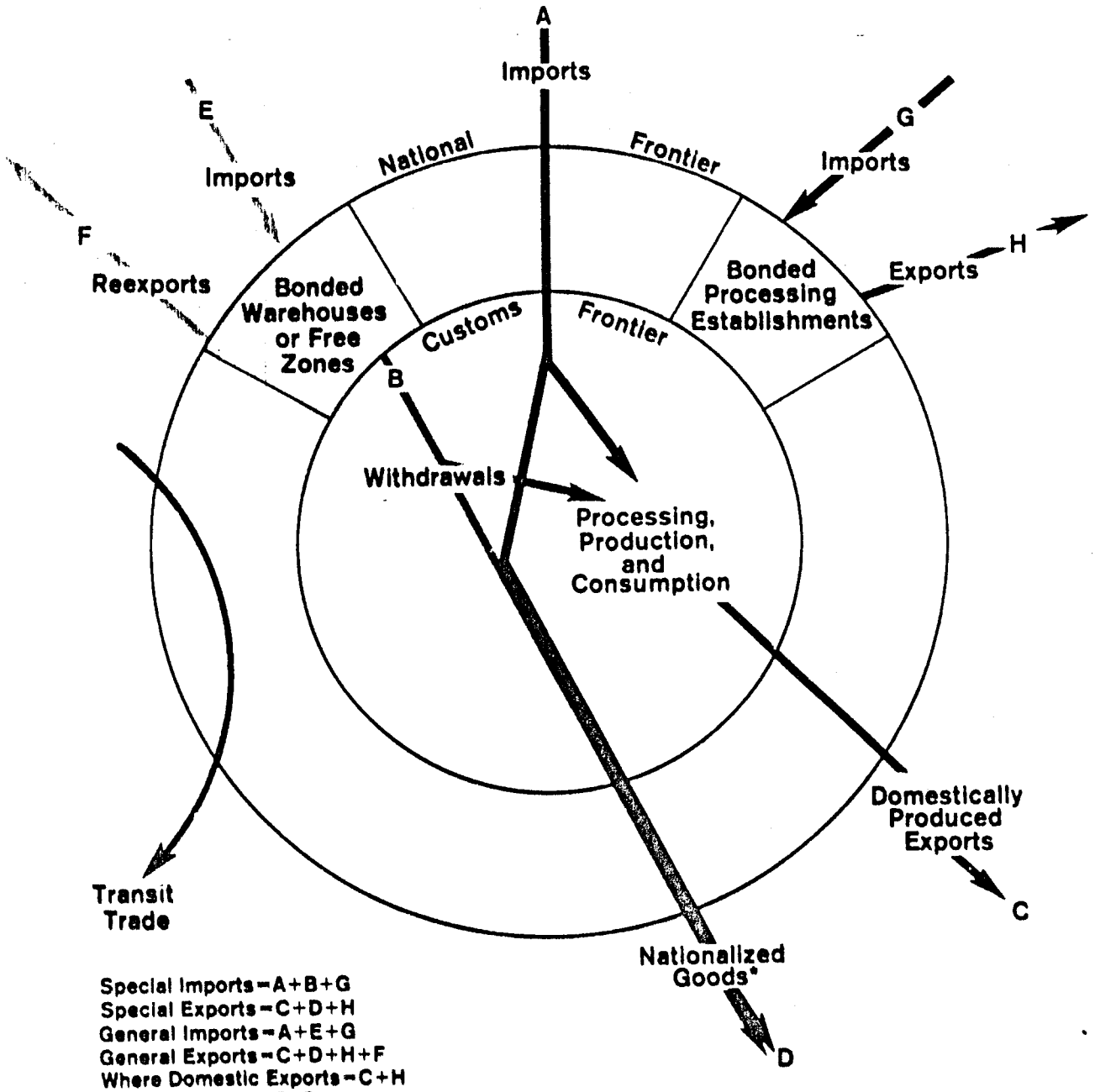
- West German, French, Italian, and Belgian-Luxembourg exports should be less than Soviet imports by the value of their reexports from bonded warehouses and free zones and the value of goods bought abroad by the USSR and then delivered to other countries.

- US, Japanese, UK, and Canadian exports should be less than Soviet imports by the value of goods that do not enter the USSR.

- West German, French, Italian, Netherlands, and Belgian-Luxembourg imports should be less than Soviet exports by the value of Soviet goods entering bonded warehouses and free zones and the value of goods originating in other countries but bought and sold by the USSR in transit.

- US, Japanese, UK, and Canadian imports should be less than Soviet exports by the value of goods that the USSR buys abroad and delivers to these countries (counted by the USSR as Soviet exports but by these countries as imports from the country of origin, or last consignment in the case of Canada).

Special and General Trade Reporting Systems



Special Imports = A+B+G
Special Exports = C+D+H
General Imports = A+E+G
General Exports = C+D+H+F
Where Domestic Exports = C+H
and Re-exports = F+D

*Nationalized goods—goods included in special imports that are exported without transformation.

572092 2-77

30. ***Omissions.*** The only noticeable omission from aggregate Western statistics is the exclusion in UN statistics of United Kingdom imports of Soviet diamonds, textile fibers, and ferroalloys since 1970. OECD and country sources show these deliveries.

31. On the Soviet side, figures for total exports to and imports from Western trading partners are believed to be free of omissions; at least there is no evidence to the contrary. The commodity breakdowns of exports and imports reported in Soviet handbooks are not exhaustive, however; there are "unspecified" export and import residuals (see Tables 4 and 5). In addition, only the trade involving machinery and equipment (CTN 1) is reported on a 1-digit level. (Even then, there is a residual since the subcategory breakdown in CTN 1 is incomplete.) Three 2-digit codes along with their subcategories are completely omitted from exports and imports reported by the USSR: precious metals and precious metal goods for industrial purposes (CTN 28), isotopes and amorphous chemicals (CTN 36), and metal storehouses, structures, and tubing (CTN 42). Furthermore, the Soviets traditionally have excluded several 3- and 4-digit subcategories–in particular, diamonds–from their trade statistics.

32. The "unspecified" residuals in Soviet statistics on exports to the Western countries (Table 4) are accounted for largely by the commodity categories that are omitted from the USSR handbooks–diamonds and other precious stones; silver, platinum, and platinum group metals; silver and platinum ores; jewelry of gold, silver, and platinum; nickel; and isotopes and amorphous chemicals. Other commodities comprising the residual vary by country. (Gold, unlike other precious metals, is omitted entirely from Soviet trade data. This is consistent with Western reporting, however, which excludes monetary and nonmonetary gold from merchandise trade. Consequently, gold does not play a role in reconciling Soviet and Western data.) Unspecified residuals in Soviet statistics on imports from Western countries (Table 5) generally are smaller than the export residuals and also are of little importance.

33. Trade in a commodity reported in the breakdown of exports to one country may not be reported in the breakdown for another country, although trade in the given commodity takes place in both cases. To some extent, the reason for the USSR's omission of commodities in its trade reports is innocent enough. Goods may be included in a country residual one year and reported explicitly

Table 4

Soviet "Unspecified" Export Residuals as a Share of Total Exports, by Country

Percent

Exports to	1970	1971	1972	1973	1974
US	58.0	60.7	74.2	88.8	74.6
Belgium-Luxembourg	14.0	15.7	16.2	24.4	17.9
Canada	18.7	46.3	48.7	56.2	25.3
France	5.9	6.2	13.2	10.7	8.7
Italy	2.6	2.9	3.5	2.8	2.7
Japan	17.1	12.4	14.6	15.2	12.8
Netherlands	33.8	10.8	13.6	8.4	8.1
UK	58.0	54.1	51.8	56.5	46.8
West Germany	8.2	7.8	10.6	11.1	8.1

Table 5

Soviet "Unspecified" Import Residuals as a Share of Total Imports, by Country

Percent

Imports from	1970	1971	1972	1973	1974
US	0.6	11.9	8.2	8.7	4.6
Belgium-Luxembourg	10.3	20.3	13.7	16.9	8.9
Canada	0.4	0.8	0.2	0.2	3.1
France	4.6	5.0	5.8	5.3	5.2
Italy	4.1	3.9	4.3	5.6	5.4
Japan	5.0	6.8	4.2	5.9	4.9
Netherlands	8.7	3.4	14.8	9.0	3.3
UK	5.3	4.2	5.6	4.8	7.9
West Germany	3.7	3.6	3.7	6.8	9.8

the next. This generally occurs when the statistical authorities deem that trade in the commodity has become large enough to include in the distribution of trade by commodity.

Method of Identifying Partners

34. Lack of uniformity in identifying the country of origin for imports and the country of destination for exports also results in differences between Soviet and Western trade data. The various procedures are set out in Table 6. The United Kingdom, Belgium-Luxembourg, and the Netherlands use the system of first consignment for their imports and the country of last consignment for their exports.[10] Canada also assigns its exports to the country of last consignment but identifies imports with the country from which the goods are last shipped to Canada. France and Japan report their imports by country of production and their exports by country of last consignment.[11] The USSR, like the United States, West Germany, and Italy, identifies its imports with the country of production and its exports with the country of consumption.[12]

35. Reconciliation of Soviet and Western trade statistics is especially difficult when countries of first and last consignment or production and consumption are unknown to statistical agencies. Imports then are usually identified with the country from which they are shipped and exports with the country to which they are addressed. Consequently, countries tend to overstate their trade with partners that are heavily involved in transshipping and reexporting, such as the Netherlands and Belgium-Luxembourg.

Framework for Reconciliation

36. Proceeding from this general survey of potential problems in comparing country trade statistics, the chief reason for discrepancies between the trade

10. The country of first consignment is the country from which the goods are first shipped to the reporting country without a commercial transaction intervening between that country and the importing country. For exports, the country of last consignment is the last country to which the goods were shipped by the exporting country without any intervening commercial transactions.

11. The country of production is the country where the merchandise was grown, mined or manufactured, either wholly or partly.

12. The country of consumption is the ultimate destination or the country where the goods will be further processed. If the ultimate destination is unknown, the country of last consignment is used.

Table 6

Guidelines for Identification of Trading Partners

Western Exports and Soviet Imports

Exports by:	Western Countries: Identification of Export Destination	USSR: Identification of Source of Imports	Effect on Comparison of Western Exports and Soviet Imports
Belgium-Luxembourg Canada France Japan Netherlands UK	Country of last consignment	Country of production	Western exports should equal Soviet imports if the exports are domestically produced goods that are shipped to the USSR without intervening commercial transactions. Soviet import figures should be less than Western values, on the other hand, if the exports are nationalized goods or reexports–the US, Japan, the UK, and Canada use a general reporting system–and the Soviets can identify the country of origin. If the country of origin is unknown, however, the goods are credited to the Western country from which they are shipped, and Soviet and Western values would match.
US Italy West Germany	Country of consumption		Western exports of domestically produced goods to the USSR should be identical to Soviet imports, assuming that the countries of consumption and origin are known to the Western country and to the USSR.

Western Imports and Soviet Exports

Imports by:	Western Countries: Identification of Source of Imports	USSR: Identification of Export Destination	Effect on Comparison of Western Imports and Soviet Exports
Belgium-Luxembourg Netherlands UK	Country of first consignment	Country of consumption	Western imports should match Soviet exports if the goods–excluding reexports–are shipped to the Western country from the USSR without intervening commercial transactions. When reexports are included in the trade flow, imports for the Netherlands and Belgium-Luxembourg would equal Soviet exports data, assuming that the USSR can identify the country of final consumption. If not, some Soviet exports would be credited to these countries, tending to make Soviet exports larger than imports by the Netherlands and Belgium-Luxembourg. UK imports would be expected to exceed Soviet exports since the UK includes reexports as imports under its general reporting system.
Canada	Country from which shipped (last stop)		If goods shipped from the USSR to Canada for final consumption go directly to Canada without intermediate stops, then Canadian imports should equal Soviet exports. Otherwise, Canadian data would be less than Soviet data. Canadian imports could exceed Soviet exports, on the other hand, if Soviet goods were reexported by Canada and the USSR knew the country of consumption.
US France Italy Japan West Germany	Country of production		French, Italian, and West German imports should equal Soviet exports. US and Japanese imports, on the other hand, should exceed Soviet exports–assuming the USSR can identify the country of consumption–because the US and Japan count reexports as imports.

statistics of the USSR and its Western trading partners can be determined on a case-by-case basis by examining trade on aggregate, 1-digit CTN, and commodity levels.[13]

Comparison of Western Imports and Soviet Exports

37. Western imports that are recorded on a c.i.f. basis should be greater than the corresponding Soviet exports at all levels if valuation problems--c.i.f. versus f.o.b.--are the only sources of discrepancies or outweigh other reporting differences (Table 7). On a 1-digit level, the incomplete commodity breakdown published by the Soviets further adds to the imbalance. If imports, on the other hand, are less than Soviet exports (or the discrepancies between Western imports and Soviet exports are too small to fully reflect c.i.f.-f.o.b. differences), then omissions from Western data on an aggregate and 1-digit level or problems in defining trade partners probably are important.

38. When Western countries value their imports on an f.o.b. basis, the aggregate value of imports should compare closely with the value of Soviet exports. If Western imports are greater than Soviet exports, however, then coverage and country classification problems presumably account for the discrepancies on an aggregate as well as a 1-digit and commodity level. Furthermore, the lack of an exhaustive breakdown for 1-digit categories other than machinery and equipment (CTN 1) add to the disparities in data on a 1-digit level.

Comparison of Western Exports and Soviet Imports

39. Turning to Western exports, Soviet import statistics should be slightly larger than Western export figures at the aggregate level and for CTN 1. The imbalance stems largely from the Soviet inclusion of the cost of "know-how" in the machinery and equipment category (CTN 1) and the USSR's broader definition of reexports. The c.i.f.-f.o.b. problem does not arise, since both Western exports and Soviet imports are recorded f.o.b.

40. If Western exports are greater than Soviet imports at the aggregate or the CTN 1 level, then the disparities can be accounted for by reexports and country

13. Disparities in trade statistics stemming from differences between shipping and receiving times are washed out for the most part when trade is considered over a 5-year period.

Table 7

Summary of Possible Reasons for Discrepancies Between Soviet and Western Trade Statistics

Type of Trade	Valuation System	Possibilities	Level of Trade	Probable Causes
Western imports	c.i.f.	Western imports greater than Soviet exports	Aggregate	C.i.f.-f.o.b. valuation problem
			1-digit	C.i.f.-f.o.b. valuation problem Incomplete Soviet commodity breakdown
			Commodity	C.i.f.-f.o.b. valuation problem
		Western imports less than Soviet exports	Aggregate	Omissions in Western data
				Reexport problem
				Difficulty in defining trade partners
			1-digit	Omissions in Western data Reexport problem Difficulty in defining trade partners
			Commodity	Reexport problems Difficulty in defining trade partners
	f.o.b.	Western imports greater than Soviet exports	Aggregate	Reexport problem Difficulty in defining trade partners
			1-digit	Incomplete Soviet commodity breakdown Reexport problem Difficulty in defining trade partners
			Commodity	Reexport problem Difficulty in defining trade partners
		Western imports less than Soviet exports	Aggregate	Reexport problem Difficulty in defining trade partners
			1-digit	Reexport problem Difficulty in defining trade partners
			Commodity	Reexport problem Difficulty in defining trade partners
Western exports	f.o.b.	Western exports less than Soviet imports	Aggregate	Definition of trade problem Reexport problem Difficulty in defining trade partners
			1-digit	Definition of trade problem (CTN 1 only) Reexport problem Difficulty in defining trade partners
			Commodity	Definition of trade problem (CTN 1 only) Reexport problem Difficulty in defining trade partners
		Western exports greater than Soviet imports	Aggregate	Reexport problem Difficulty in defining trade partners
			1-digit	Incomplete Soviet commodity breakdown Reexport problem Difficulty in defining trade partners
			Commodity	Reexport problem Difficulty in defining trade partners

classification difficulties. For the remaining 1-digit categories, Western statistics should be greater, since the USSR's breakdown is not exhaustive, and the Soviet 1-digit CTN totals represent the sum of reported subcategories within a given CTN.

Reconciliation of Soviet-Western Trade Statistics, by Country

41. The reasons for the differences between Soviet and Western values of bilateral trade can be found mainly in the general circumstances described above. Nonetheless, statistics recording each bilateral connection have their own peculiarities, so reconciliation must be carried out on a case-by-case basis. In the following country sections, detailed trade data for 1970-74 provide the raw material for such a reconciliation.

42. Soviet exports and imports are examined first at the 1-digit CTN level, in both USSR and partner country versions. For shorthand purposes, the tables in the country sectors refer to Soviet exports and imports and the imports and exports of the individual Western countries. Soviet exports and imports are the values reported in Soviet statistics; Western imports and exports are the comparable values reported in Western statistics. Average unit prices are calculated when they might be illuminating with regard to f.o.b.-c.i.f. and other problems. For each country, an attempt is also made to define the content of the Soviet export residual. Within 1-digit trade categories, Soviet and Western reporting are matched insofar as possible to help explain discrepancies. The results are a mixed bag of rather firm conclusions, reasonable inferences backed by some evidence, and unconfirmed hypotheses.

43. Much of the country analysis is detailed and somewhat tedious. Because of the questions that have arisen concerning Soviet-US trade, the US section is particularly long. The general reader, however, can move directly to the conclusions or sample just one or two of the country sections to obtain a better idea of the approach and the bases for the conclusions.

United States

Soviet Exports and US Imports

44. The USSR's failure to identify the US as the country of final destination for all Soviet goods that ultimately reach the US is largely responsible for the

Table 8

Comparison of Soviet Exports and US Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	58	63	701	1,168	1,618	3,608
US	549	1,464	1,438	2,644	3,564	9,659
USSR as percent of US	*11*	*4*	*49*	*44*	*45*	*37*
CTN 2						
USSR	13,329	14,328	10,618	6,916	13,861	59,052
US	61,737	46,630	81,730	193,282	319,612	702,991
USSR as percent of US	*22*	*31*	*13*	*4*	*4*	*8*
CTN 3						
USSR	660	344	1,330	1,655	30,094	34 083
US	551	823	1,058	1,429	9,691	13,562
USSR as percent of US	*120*	*41*	*126*	*116*	*311*	*251*
CTN 4						
USSR	900	1,108	1,558	1,571	911	6,048
US	1,498	1,629	2,144	3,289	1,683	10,243
USSR as percent of US	*60*	*68*	*73*	*48*	*54*	*59*
CTN 5						
USSR	3,933	2,327	3,890	4,495	5,555	20,200
US	4,304	3,451	4,562	5,941	9,475	27,733
USSR as percent of US	*91*	*67*	*85*	*76*	*59*	*73*
CTN 6, 7						
USSR	4,918	2,488	1,614	0	0	9,020
US	6	25	20	27	468	546
USSR as percent of US	*81,967*	*9,952*	*8,070*	*0*	*0*	*1,652*
CTN 8						
USSR	585	223	458	431	560	2,257
US	620	264	715	852	711	3,162
USSR as percent of US	*94*	*84*	*64*	*51*	*79*	*71*
CTN 9						
USSR	2,582	2,888	3,706	4,692	6,733	20,601
US	3,046	3,304	3,868	6,489	5,019	21,726
USSR as percent of US	*85*	*87*	*96*	*72*	*134*	*95*
Total CTN 1-9						
USSR	26,964	23,768	23,875	20,928	59,332	154,866
US	72,311	57,600	95,535	213,953	350,223	789,622
USSR as percent of US	*37*	*41*	*25*	*10*	*17*	*20*

fact that US imports generally have been larger t an corresponding Soviet exports (see Tables 1 and 8). The gap, which had been relatively small, jumped to $28 million in 1973 and in 1974 shot up to $116 million–equivalent to one-half the value of Soviet exports to the US.

45. A comparison of Soviet and US data suggests that Soviet fuel, mineral, and metal (CTN 2) exports account for nearly all of the anomaly. The difference between Soviet exports, which include the CTN 2 commodities reported in the USSR trade books plus the "unspecified" export residual (adjusted to exclude non-CTN 2 commodities), and US fuel, mineral, and metal imports tracks closely with the differences between total Soviet exports and US imports in 1970-74 (Table 9).

Table 9

Comparison of Soviet Exports and US Imports in CTN 2

Million US $

	1970	1971	1972	1973	1974
Reported CTN 2 exports	13.3	14.3	10.6	6.9	13.9
"Unspecified" residual adjusted for non-CTN 2 exports[1]	35.4	34.7	66.9	163.0	174.1
Total	48.7	49.0	77.5	169.9	188.0
US CTN 2 imports	61.7	46.6	81.7	193.3	319.6
Difference between Soviet CTN 2 exports and US CTN 2 imports	-13.0	2.4	-4.2	-23.4	-131.6
Difference between total Soviet exports and total US imports	-8.1	2.8	-3.1	-28.0	-116.2

1. The following CTN 2 exports are contained in the "unspecified" export residual for Soviet-US trade: diamonds and other precious stones, platinum and platinum group metals, and petroleum and petroleum products.

46. Furthermore, the commodities that the US reports as imports and that the USSR does not report as exports seem to be normally included in Soviet export residuals (Table 10). In 1970-74, at least, the difference between the Soviet export

Table 10

Analysis of Unidentified Soviet Exports to the US

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	13,262	11,225	13,435	17,260	11,875	67,057
Other precious stones (SITC 6673)	170	17	51	19	39	296
Platinum and platinum group metals (SITC 6812)	22,887	19,515	44,708	75,955	134,183	297,248
Silver and platinum ore (SITC 285)	0	0	0	0	16	16
Jewelry of gold, silver, and platinum (SITC 8971)	1,869	1,973	1,690	1,961	400	7,893
Nickel (SITC 683)	5,480	53	262	10,538	39,939	56,272
Isotopes and amorphous chemicals (SITC 515)	18	9	1	173	190	391
Petroleum, crude and partly refined (SITC 331)	0	0	1,952	20,730	24,941	47,623
Petroleum products (SITC 332)	2,807	652	5,510	54,850	78,495	142,314
Imports identified by US but not by USSR	**46,493**	**33,444**	**67,609**	**181,486**	**290,078**	**619,110**
Unspecified Soviet export residual	**37,258**	**36,676**	**68,569**	**165,102**	**174,705**	**482,310**
	Percent					
Value reported by US as share of unspecified Soviet export residual	**125**	**91**	**99**	**110**	**166**	**128**

residual and the value reported by the US for imports of the commodities usually omitted from the Soviet breakdown of US-Soviet trade closely matches the discrepancy between Soviet exports and US imports on an aggregate level:

	Million US $				
	1970	1971	1972	1973	1974
Difference between the Soviet export residual and assumed US imports in the residual	-9.2	3.2	1.0	-16.4	-115.4
Difference between total Soviet exports and total US imports	-8.1	2.8	-3.1	-28.0	-116.2

47. In 1973-74, when there was a substantial difference between Soviet exports and US imports, only part of the Soviet oil reaching the US was identified as an export to the US in Soviet trade books, and these shipments were lumped in the "unspecified" export residual. US imports of Soviet oil in 1974 totaled $103.4 million, while the USSR reported exports of only $14.3 million to the US.[14] Thus, $89.1 million of the total discrepancy of $115.4 million can be accounted for. The remaining $26.3 million probably reflects Soviet exports of diamonds or platinum and platinum group metals not credited as an export to the US but recorded by the US as an import from the USSR. The oil, diamond, and metal exports presumably were shipped initially to a third country—for example, the Netherlands in the case of oil—and then on to the US.[15] Similarly, Soviet oil, diamond, and metal exports not identified as exports to the US in 1973 amounted to $16.4 million—the difference between the Soviet export residual and the corresponding residual calculated from US data.

48. Besides oil, diamonds, and precious metals, several other Soviet CTN 2 exports—totaling $17.7 million in 1974—appeared in US data as imports from the USSR but not in Soviet export statistics: nonferrous scrap, coke, iron and steel, copper, zinc, and $11 million worth of other nonferrous metals. Consequently, Soviet exports reaching the US in 1974 but not recorded as exports to the US by the USSR amounted to roughly $136.1 million. This imbalance was partially offset by Soviet urea exports (CTN 30412) of $17.4 million to the US in 1974. These were not included in US trade statistics, so Soviet rubber, chemical, and fertilizer (CTN 3) exports exceeded corresponding US imports on a 1-digit level (Table 8, page 17).

49. Soviet exports and US imports in 1973-74 therefore can be reconciled in the following manner:

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14. Although the 1974 foreign trade handbook did not report Soviet exports of oil to the US, the 1975 trade book did.

15. The USSR reported petroleum exports to the Netherlands of $183 million in 1973 and of $267 million in 1974, while the Netherlands reported imports of only $48 million and $130 million, respectively.

	Million US $	
Soviet exports less US imports of:	**1973**	**1974**
Petroleum and petroleum products (SITC 33)	-16.4	-89.1
Platinum and platinum group metals or diamonds (SITC 6812 an STIC 6672)		-26.3
Nonferrous metal scrap (SITC 284)		-1.1
Coke (SITC 3218)		-2.4
Iron and steel (SITC 67)	-0.1	-1.4
Copper (SITC 682)	-0.3	-1.9
Zinc (SITC 686)	-2.8	-0.3
Miscellaneous nonferrous base metals (SITC 6895)	-4.3	-10.6
Chrome ore (CTN 24004)	0.9	4.4
Urea (CTN 30412)		17.4
Other	-4.5	-3.0
Total	-27.5	-114.3
Total difference between Soviet exports and US imports	-28.0	-116.2

Soviet Imports and US Exports

50. On the other side of the balance, Soviet imports generally ran larger than US exports before 1970 because all US goods delivered finally to the USSR were not identified in US trade books as exports to the USSR (Table 2). Apparently shipped to Western Europe and then on to the USSR, these goods appear in US data as exports to a third country and not to the USSR (the US records exports according to the country of last consignment if the country of consumption is unknown). In 1970-71, however, the usual discrepancy was more than offset by the Soviet failure to identify the US as the exporter of all US machinery and equipment (CTN 1) that the US reported as shipped to the USSR. In 1972-74, Soviet imports again were larger than US exports. The broader definition of reexports used by the Soviets largely accounted for the bias; as noted above, in its imports the USSR includes goods bought on Soviet account and shipped directly to a third country from the exporting country.

51. Reported Soviet imports of machinery and equipment (CTN 1) were $22 million less than corresponding US CTN 1 exports to the USSR in 1970 and $36 million less in 1971 (see Table 11). These imbalances were large enough to outweigh the positive differences in other categories–in particular, Soviet imports of raw materials of vegetable and animal origin (CTN 5).

52. In 1971, the increase in the difference between recorded Soviet machinery imports and US CTN 1 exports pushed the aggregate discrepancy up to $18 million compared with $4 million in 1970 (see Table 12). Although Soviet imports of raw materials for the manufacture of foodstuffs (CTN 7) were $14 million less than US exports, the USSR apparently included the remainder of CTN 7 imports (mainly wheat, corn, and unmilled cereal) in an "unspecified" import residual, totaling $17 million. When the differences between Soviet imports and US exports in CTN 1-9 are added to the value of Soviet imports that are not allocated by CTN category (Table 12), the sum very nearly equals the difference between total reported Soviet imports and total reported US exports.

53. In 1972-74, US grain bought on Soviet account for shipment to third countries–probably Eastern Europe–was chiefly responsible for the excess of Soviet imports over US exports. The Soviets reported the grain as an import from the US and then as a Soviet export, while in US trade statistics the shipments appear as exports to the country of consumption or last consignment.

54. Roughly 5 percent of the US grain purchased by the Soviets in 1972 and recorded as an import from the US apparently was shipped to third countries.[16] In addition, the difference between Soviet machinery and equipment imports and US exports dropped sharply in 1972 to one-fifth its 1971 level. The $43 million difference between Soviet imports and US exports of raw materials of vegetable and animal origin (CTN 5)–stemming from US exports of soybeans that did not appear as imports in the Soviet commodity breakdown–was more than covered by the "unspecified" import residual, which jumped to nearly $46 million.

55. The excess of Soviet CTN 6-7 imports over US exports soared to $116 million in 1973; Soviet imports of US grain were nearly 15 percent larger by weight

16. The Soviet import figure possibly includes US grain sold to Western Europe and then resold by the Europeans to the USSR. The Soviets would credit the US with the export if they knew the origin of the grain.

Table 11

Comparison of Soviet Imports and US Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	23,994	29,247	57,644	227,610	249,151	587,646
US	45,974	65,447	65,334	208,908	230,808	616,471
USSR as percent of US	*52*	*45*	*88*	*109*	*108*	*95*
CTN 2						
USSR	25,974	31,299	16,924	29,619	17,485	121,301
US	25,767	26,994	13,365	17,280	12,937	96,343
USSR as percent of US	*101*	*116*	*127*	*171*	*135*	*126*
CTN 3						
USSR	11,747	17,825	13,357	21,916	56,745	121,590
US	5,393	16,218	9,328	17,692	35,567	84,198
USSR as percent of US	*218*	*110*	*143*	*124*	*160*	*144*
CTN 4						
USSR	0	0	0	0	0	0
US	273	249	634	444	1,698	3,298
CTN 5						
USSR	46,746	42,907	34,241	23,483	30,731	178,108
US	33,821	30,804	77,529	87,037	29,226	258,417
USSR as percent of US	*138*	*139*	*44*	*27*	*105*	*69*
CTN 6, 7						
USSR	62	67	385,720	954,023	348,667	1,688,539
US	10	14,264	369,920	837,550	278,037	1,498,731
USSR as percent of US	*620*	*Negl*	*105*	*114*	*125*	*113*
CTN 8						
USSR	3,163	2,702	1,849	2,198	5,002	14,914
US	2,284	2,456	3,286	10,692	9,137	27,855
USSR as percent of US	*138*	*110*	*56*	*21*	*55*	*54*
CTN 9						
USSR	2,180	2,460	2,755	2,593	3,951	13,939
US	4,694	5,188	8,096	8,035	10,393	36,406
USSR as percent of US	*46*	*47*	*34*	*32*	*38*	*38*
Total CTN 1-9						
USSR	113,867	126,508	512,491	1,261,443	711,732	2,726,040
US	118,216	161,620	546,492	1,187,638	607,803	2,621,769
USSR as percent of US	*96*	*78*	*94*	*106*	*117*	*104*

Table 12

Difference Between Soviet Imports and US Exports

Million US $

CTN	Category	1970	1971	1972	1973	1974
1	Machinery and equipment[1]	-22.0	-36.2	-7.7	18.7	18.3
	Of which:					
	SITC 712-agricultural machinery	-10.9	-7.0			
	SITC 714-office machinery		-3.6			
	SITC 715-metalworking machinery	6.2	-2.5			
	SITC 718-machinery for special industries		5.2			
	SITC 719-machinery and appliances,[2] other than electrical	-8.6	-24.5			
	Other SITC 71 commodities	-3.5				
	SITC 732-road motor vehicles	-3.3				
2	Fuel, minerals, and metals	0.2	4.3	3.6	12.3	4.5
	Of which:					
	SITC 33-oil products		-0.4		1.7	
	SITC 51365-aluminum oxide		7.3		11.8	
	SITC 67-iron and steel		-2.2			
3	Chemicals, fertilizers, and rubber	6.4	1.6	4.0	4.2	21.2
	Of which:					
	SITC 58-plastic materials, regenerated cellulose and artificial resins					13.3
	SITC 5992-insecticides, fungicides, disinfectants, and the like	4.4				4.4
4	Building materials and construction parts	-0.3	-0.2	0.6	-0.4	-1.7
5	Raw materials of vegetable and animal origin	12.9	12.1	-43.3	-63.6	1.5
	Of which:					
	SITC 21-hides	2.5	3.2	2.5	3.2	
	SITC 2214-soybeans			-52.1	-67.3	
	SITC 25-pulp and waste paper	6.5	5.1	1.3	2.0	
	SITC 26-textile fibres	2.0	0.6	1.3	1.3	
	SITC 6517-yarn and thread of artificial fibers	1.0	1.8	3.7		
6, 7	Live animals not for slaughter; raw materials for production of foodstuffs	0.1	-14.2	16.8	116.5	70.6
	Of which:					
	SITC 041-wheat		-0.2	-16.8	89.2	11.5
	SITC 043-barley			10.9		
	SITC 044-corn		-11.2	22.6	23.9	52.6
	SITC 045-cereal, unmilled		-1.8		3.4	6.5
8	Foodstuffs	0.9	0.2	1.4	-8.5	-4.1
9	Industrial consumer goods (other than food)	-2.5	-2.7	-5.1	-5.4	-6.4
	Of which:					
	SITC 893-articles of artificial plastic materials	-3.2				-5.1
	SITC 896-works of art					-0.7
	Total, CTN 1-9	-4.3	-35.1	33.9	73.8	103.9
	Soviet imports not allocated by CTN category	0.2	13.0	45.8	119.9	33.9
	Computed difference	-3.6	-18.1	11.9	193.7	137.8
	Total difference between Soviet imports and US exports	-3.6	-18.0	51.6	193.7	137.8

1. The commodity breakdown for machinery and equipment is not as reliable as the breakdown for nonmachinery trade because the SITC and CTN systems do not permit an exact concordance for machinery.
2. Mainly, mechanical handling equipment.

than corresponding US figures. In addition, Soviet imports of US machinery and equipment (CTN 1) outweighed US exports by roughly $20 million. The cost of imported US technology associated with the purchase of US machinery presumably accounted for a large share of the difference. Again, US CTN 5 exports were larger than Soviet imports because of US exports of soybeans, which were probably counted in the Soviet import residual as they were in 1972.

56. The factors accounting for the discrepancy between Soviet imports and US exports in 1973 were also at work in 1974. Soviet grain imports exceeded US exports by more than 25 percent and the inclusion of technology raised Soviet machinery imports above US exports by $18 million. In addition, Soviet imports of chemicals, fertilizers, and rubber (CTN 3) were $21 million larger than US exports, primarily because the USSR credited the US with exports of plastic materials, regenerated cellulose, and artificial resins (SITC 58) that were not reported in US exports. Very likely, these products reached the USSR via a third country.

Belgium-Luxembourg

Soviet Exports and Belgian-Luxembourg Imports

57. The treatment of reexports explains why Soviet imports exceed Belgian-Luxembourg imports (see Tables 1 and 13).[17] Belgium-Luxembourg records its trade flows under a special system that does not count reexports in its trade. The value of reexports, which has been large enough to offset c.i.f.-f.o.b. valuation differences, has increased in recent years—particularly in CTN 2 (fuels, minerals, and metals).

58. Comparisons of a weighted average of unit prices for selected Belgium-Luxembourg imports for 1970-74 with Soviet export unit prices suggest that Belgium-Luxembourg imports would have exceeded Soviet exports in at least 4 of the 5 years because of c.i.f.-f.o.b. differences if reexports had not been a factor (see Table 14). Nonetheless, in 1974 the disparity between Soviet exports

17. Transshipments also play a role. If the final destination of Soviet exports passing through Belgium-Luxembourg were unknown to the USSR, the Soviets would incorrectly identify Belgium-Luxembourg as the importing country. This is more of a problem for Belgium-Luxembourg than for other countries because of its geographic position.

Table 13

Comparison of Soviet Exports and Belgian-Luxembourg Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	2,166	2,137	6,880	20,488	10,400	42,071
Belgium-Luxembourg	2,086	1,915	4,047	4,980	9,747	22,775
USSR as percent of Belgium-Luxembourg	*104*	*116*	*170*	*411*	*107*	*185*
CTN 2						
USSR	29,676	47,314	56,137	108,681	199,160	440,968
Belgium-Luxembourg	34,729	55,916	48,590	106,254	165,989	411,478
USSR as percent of Belgium-Luxembourg	*85*	*85*	*116*	*102*	*120*	*107*
CTN 3						
USSR	6,451	7,725	8,906	14,269	36,077	73,428
Belgium-Luxembourg	6,517	8,043	10,303	13,904	28,817	67,584
USSR as percent of Belgium-Luxembourg	*99*	*96*	*89*	*103*	*125*	*109*
CTN 4						
USSR	50	0	0	0	0	50
Belgium-Luxembourg	70	73	54	43	62	302
USSR as percent of Belgium-Luxembourg	*71*					*17*
CTN 5						
USSR	21,742	22,637	24,735	42,890	62,427	174,431
Belgium-Luxembourg	25,603	22,041	33,005	43,108	54,789	178,546
USSR as percent of Belgium-Luxembourg	*85*	*103*	*75*	*99*	*114*	*98*
CTN 6, 7						
USSR	406	1,358	47	0	362	2,173
Belgium-Luxembourg	561	2,969	1,184	1,533	345	6,592
USSR as percent of Belgium-Luxembourg	*72*	*46*	*4*		*105*	*33*
CTN 8						
USSR	5,649	7,381	8,925	9,482	14,009	45,446
Belgium-Luxembourg	6,760	11,024	6,618	6,855	7,858	39,115
USSR as percent of Belgium-Luxembourg	*84*	*67*	*135*	*138*	*178*	*116*
CTN 9						
USSR	4,545	3,566	4,587	6,452	8,134	27,284
Belgium-Luxembourg	535	896	1,204	1,489	2,991	7,115
USSR as percent of Belgium-Luxembourg	*850*	*398*	*381*	*433*	*272*	*383*
Total CTN 1-9						
USSR	70,686	92,118	110,217	202,259	330,568	805,848
Belgium-Luxembourg	76,861	102,877	105,005	178,166	270,598	733,507
USSR as percent of Belgium-Luxembourg	*92*	*90*	*105*	*114*	*122*	*110*

Table 14

Belgian-Luxembourg and Soviet Unit Prices for Selected Soviet Exports: Belgian-Luxembourg Unit Prices as a Percent of Soviet Unit Prices

US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 19501: passenger cars					
USSR exports	553	637	657	767	1,125
Bel-Lux imports	549	680	777	931	1,244
Percent	*99*	*107*	*118*	*121*	*111*
CTN 20001, 20002: coal					
USSR exports	11.83	19.14	15.69	14.95	29.60
Bel-Lux imports	13.20	22.54	21.36	20.82	28.77
Percent	*111*	*118*	*136*	*139*	*97*
CTN 21, 22: petroleum products					
USSR exports	15.20	16.81	17.18	55.36	87.55
Bel-Lux imports	16.69	23.04	21.23	39.42	96.24
Percent	*110*	*137*	*123*	*71*	*110*
CTN 25001: asbestos brands					
USSR exports	108.11	106.12	113.10	124.45	143.11
Bel-Lux imports	108.10	158.95	124.27	136.62	158.47
Percent	*100*	*150*	*110*	*110*	*111*
CTN 25013: apatite concentrate					
USSR exports	13.66	12.94	12.86	16.06	78.54
Bel-Lux imports	17.34	19.28	18.44	22.14	77.86
Percent	*127*	*150*	*143*	*138*	*99*
CTN 26001: pig iron					
USSR exports	62.39	61.22	60.17	71.76	121.71
Bel-Lux imports	68.05	67.93	65.95	78.63	109.55
Percent	*109*	*111*	*110*	*110*	*86*
CTN 34101: potassium salts					
USSR exports	14.56	17.02	19.68	24.07	33.15
Bel-Lux imports	29.01	30.56	33.91	39.23	51.23
Percent	*199*	*180*	*172*	*163*	*155*
CTN 50004: beams					
USSR exports	20.34	23.65	22.93	24.14	49.46
Bel-Lux imports	27.32	28.50	30.62	31.79	50.35
Percent	*134*	*121*	*134*	*132*	*102*
CTN 50101: coniferous sawn lumber					
USSR exports	76.58	79.59	76.66	119.01	254.15
Bel-Lux imports	89.66	101.87	103.58	125.05	186.02
Percent	*117*	*128*	*135*	*105*	*73*
CTN 84109: sunflower seed oil					
USSR exports	283	362	314	355	979
Bel-Lux imports	280	365	327	403	795
Percent	*99*	*101*	*104*	*114*	*81*
Weighted Average of Bel-Lux unit prices as a percent of Soviet unit prices[2]	*123*	*134*	*132*	*99*	*105*

1. These commodities account for one-half to two-thirds of Belgium-Luxembourg imports from the USSR.
2. The percentages are weighted by the corresponding values of Belgium-Luxembourg imports.

and Belgian-Luxembourg imports grew to $132 million–nearly one-half of Belgium-Luxembourg reported imports from the USSR. The difference between Soviet fuel, mineral, and metal exports (CTN 2) and corresponding Belgium-Luxembourg imports corresponds closely to the overall differences:

	Million US $				
	1970	1971	1972	1973	1974
Soviet CTN 2 exports	29.7	47.3	56.1	108.7	199.2
"Unspecified" export residual[1]	11.5	17.2	21.3	65.3	72.3
Total	41.2	64.5	77.4	174.0	271.5
Belgium-Luxembourg CTN 2 imports	34.7	55.9	48.6	106.3	166.0
Difference between Soviet exports and Belgium-Luxembourg imports in CTN 2 category	6.5	8.6	28.8	67.7	105.5
Difference between total Soviet exports and total Belgium-Luxembourg imports	5.1	6.1	26.2	89.0	131.8

1. CTN 2 commodities are assumed to account for nearly all of the "unspecified" export residual for Soviet trade with Belgium-Luxembourg.

59. Soviet deliveries of petroleum products (CTN 21, 22) were nearly twice reported Belgium-Luxembourg imports in 1970-74 and account for more than one-half the discrepancy in CTN 2 trade. In 1974, the difference between Soviet oil exports and Belgium-Luxembourg imports jumped to $91 million compared with $47 million in 1973 and $11 million in 1972. Some of the imports of commodities such as diamonds, platinum, and silver probably are reexported and account for the rest of the discrepancy between reported Soviet exports of fuels, minerals, and metals (plus the "unspecified" export residual) and Belgium-Luxembourg imports (Table 15).

60. The Soviet and Belgium-Luxembourg data also indicate that the import and then reexport (or transshipment) of Soviet goods affect trade in several other

Table 15

Analysis of Unidentified Soviet Exports to Belgium-Luxembourg

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	1,550	6,160	7,221	23,147	37,797	75,875
Other precious stones (SITC 6673)	0	0	2	0	11	13
Jewelry of gold, silver, and platinum (SITC 8971)	1	1	2	1	9	14
Nickel (SITC 683)	486	0	80	0	1,842	2,408
Isotopes and amorphous chemicals (SITC 515)	10	0	17	6	75	108
Copper and alloys (SITC 6821)	4,582	4,599	121	6,199	[1]	15,501
Imports identified by Belgium-Luxembourg but not by USSR	6,629	10,760	7,443	29,353	39,734	93,919
Unspecified Soviet export residual	11,536	17,216	21,310	65,311	72,296	187,669
	Percent					
Value reported by Belgium-Luxembourg as percent of unspecified Soviet export residual	57	62	35	45	55	50

1. The USSR began reporting copper and alloy exports to Belgium-Luxembourg in its 1974 foreign trade handbook.

1-digit CTN categories (Table 13). Soviet exports of industrial diamonds (CTN 17501) are 12 times larger than reported Belgium-Luxembourg imports in 1970-74 and account for most of the discrepancy in CTN 1 (machinery and equipment). In addition, exports of vessels and equipment totaling $7 million in 1973 appeared in the Soviet commodity breakdown but were not reported as imports by Belgium-Luxembourg. The excess of Soviet exports of chemicals, fertilizers, and rubber (CTN 3) over Belgian-Luxembourg imports in 1973-74 arises chiefly in CTN

34101 (potassium salts)–$6 million in 1973 and $7 million in 1974. In CTN 5 (raw materials of vegetable and animal origin), a higher Soviet unit price for coniferous sawn lumber (CTN 50101) combined with larger volume figures for Soviet exports produced an $8 million discrepancy in 1974. Soviet exports of canned fish (CTN 813) and sunflower seed oil (CTN 84109) also exceeded Belgium-Luxembourg imports in 1972-74; Soviet deliveries of canned fish and seed oil were more than twice Belgium-Luxembourg imports. Finally, Soviet deliveries of cotton fabrics exceeded Belgium-Luxembourg imports in 1970-74, accounting for the imbalance in consumer goods (CTN 9).

Soviet Imports and Belgian-Luxembourg Exports

61. Turning to Belgium-Luxembourg exports, reexports (or transshipments) again are the major factor in reconciling Soviet and Belgium-Luxembourg trade data. Chemical and consumer goods that are reported as imports by the Soviets but not as exports by Belgium-Luxembourg are responsible for the gap between Soviet exports and Belgium-Luxembourg imports (Table 2). Unlike the situation in trade with several other Western countries, Soviet CTN 1 imports were less than Belgium-Luxembourg exports in 1970-74 (Table 16).

62. Soviet imports of caustic soda (CTN 30101), sodium carbonate (CTN 30102), and accelerators for the rubber industry (CTN 30980) that are not recorded by Belgium-Luxembourg largely explain why USSR CTN 3 (chemicals, fertilizers, and rubber) imports exceed Belgium-Luxembourg exports. In the consumer goods category (CTN 9), the USSR identified Belgium-Luxembourg as the source of clothing and linen (CTN 91) and leather shoes (CTN 930), which do not appear in Belgium-Luxembourg trade data as exports to the USSR. Moreover, Soviet imports of rolled ferrous metals (CTN 246) in 1973-74 were larger than Belgium-Luxembourg exports, further stretching the overall gap.

Canada

Soviet Exports and Canadian Imports

63. The Canadian practice of associating its imports with the country from which the goods were last consigned to Canada is the main reason for Canada's understatement of imports from the USSR. Because Soviet goods shipped to Canada

Table 16

Comparison of Soviet Imports and Belgian-Luxembourg Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	10,284	5,127	6,580	12,956	22,552	57,499
Belgium-Luxembourg	11,568	7,435	9,230	16,182	26,989	71,404
USSR as percent of Belgium-Luxembourg	*89*	*69*	*71*	*80*	*84*	*81*
CTN 2						
USSR	3,862	17,123	37,066	128,074	274,255	460,380
Belgium-Luxembourg	11,528	25,870	46,856	124,268	252,707	461,230
USSR as percent of Belgium-Luxembourg	*34*	*66*	*79*	*103*	*109*	*100*
CTN 3						
USSR	24,668	15,520	23,762	20,796	41,554	126,300
Belgium-Luxembourg	5,277	6,564	10,452	8,578	20,595	51,466
USSR as percent of Belgium-Luxembourg	*467*	*236*	*227*	*242*	*202*	*245*
CTN 4						
USSR	0	0	0	0	0	0
Belgium-Luxembourg	10	61	29	55	29	184
CTN 5						
USSR	15,694	8,519	6,052	22,958	26,860	80,083
Belgium-Luxembourg	18,445	17,412	12,670	27,261	42,858	118,646
USSR as percent of Belgium-Luxembourg	*85*	*49*	*48*	*84*	*63*	*68*
CTN 6, 7						
USSR	0	0	0	0	0	0
Belgium-Luxembourg	10	20	4,826	10,146	452	15,454
CTN 8						
USSR	0	0	0	0	0	0
Belgium-Luxembourg	1,047	2,729	2,037	19,819	15,694	41,326
CTN 9						
USSR	20,531	16,599	11,276	9,397	20,405	78,208
Belgium-Luxembourg	6,043	5,885	5,020	5,583	8,611	31,142
USSR as percent of Belgium-Luxembourg	*340*	*282*	*225*	*168*	*237*	*251*
Total CTN 1-9						
USSR	75,039	62,887	84,735	194,179	385,627	802,467
Belgium-Luxembourg	53,928	65,970	91,120	211,893	367,935	790,852
USSR as percent of Belgium-Luxembourg	*139*	*95*	*93*	*92*	*105*	*101*

via a third country are reported as imports from the third country in Canadian trade books, Soviet export data exceed Canadian imports (Tables 1 and 17). Differences in valuation–e.g., c.i.f.-f.o.b.–are not a factor in reconciling Soviet and Canadian data since Canada, unlike other Western countries, records imports on an f.o.b basis.

64. A close look at Soviet and Canadian data shows that much of Soviet chrome ore (CTN 24004) reaches Canada via the US. Therefore, the US and not the USSR is credited with these exports.[18] Similarly, reported Soviet exports of petroleum products (CTN 21, 22) to Canada totaling $10 million in 1974 and $16 million in 1975 are not found in Canadian trade books. The Soviet oil most likely is shipped first to the US and then on to Canada. In CTN 4, Soviet exports of wood tiles (CTN 41202 and 41203) are greater than Canadian imports while Soviet exports of furs and fur materials (CTN 52) are larger than corresponding Canadian imports. Soviet deliveries of industrial consumer goods–especially watches (CTN 97011 and 97046)–also exceed Canadian figures. Again these commodities probably are last consigned to Canada from a country other than the USSR. In some 1-digit categories, Soviet data fall short of Canadian figures. The commodities not reported in the USSR trade handbook are for the most part in the "unspecified" export residual. Isotopes and amorphous chemicals, in particular, account for an increasing share of the residual in recent years (Table 18).

Soviet Imports and Canadian Exports

65. Because the USSR includes goods that are reexported as imports while Canada designates the country of last consignment as the importing country, Soviet imports are consistently above Canadian exports (Table 2). For some reason, the USSR's inclusion of the cost of technology as part of its machinery and equipment (CTN 1) imports does not produce the same result as in other Western countries; Soviet CTN 1 imports are generally less than Canadian exports (Table 19).

66. Much of the discrepancies in 1970-74 can be traced to the treatment of Canadian exports of wheat (CTN 70001), barley (CTN 70003), and wheat flour (CTN 82001). Differences between Soviet imports and Canadian exports of these

18. The US does not produce chrome ore.

Table 17

Comparison of Soviet Exports and Canadian Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	276	224	486	1,422	3,622	6,030
Canada	516	690	837	2,622	4,354	9,019
USSR as percent of Canada	*53*	*32*	*58*	*54*	*83*	*67*
CTN 2						
USSR	1,045	1,356	1,851	97	11,958	16,307
Canada	1,815	3,260	3,460	6,897	573	16,005
USSR as percent of Canada	*58*	*42*	*54*	*1*	*209*	*102*
CTN 3						
USSR	0	0	0	0	1,056	1,056
Canada	53	3,832	3,448	5,120	4,850	17,303
USSR as percent of Canada					*22*	*6*
CTN 4						
USSR	213	342	463	589	1,039	2,646
Canada	52	45	72	119	279	567
USSR as percent of Canada	*410*	*760*	*643*	*495*	*372*	*467*
CTN 5						
USSR	2,252	1,613	2,698	3,675	6,276	16,514
Canada	1,943	1,098	1,934	2,602	6,995	14,572
USSR as percent of Canada	*116*	*147*	*140*	*141*	*90*	*113*
CTN 6, 7						
USSR	0	0	0	0	0	0
Canada	1,635	0	0	0	0	1,635
CTN 8						
USSR	110	112	201	286	420	1,129
Canada	177	205	332	393	569	1,676
USSR as percent of Canada	*62*	*55*	*61*	*73*	*74*	*67*
CTN 9						
USSR	2,876	3,754	5,915	6,303	4,112	22,960
Canada	2,487	3,397	5,271	5,232	3,302	19,689
USSR as percent of Canada	*116*	*111*	*112*	*120*	*125*	*117*
Total CTN 1-9						
USSR	6,771	7,402	11,615	12,371	28,483	66,642
Canada	8,678	12,527	15,354	22,985	20,922	80,466
USSR as percent of Canada	*78*	*59*	*76*	*54*	*136*	*83*

Table 18

Analysis of Unidentified Soviet Exports to Canada

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	734	2,251	2,467	1,853	0	7,305
Jewelry of gold, silver, and platinum (SITC 8971)	8	0	0	1	0	9
Nickel (SITC 683)	0	0	0	4,195	0	4,195
Isotopes and amorphous chemicals (SITC 515)	9	3,451	2,620	4,763	4,133	14,976
Imports identified by Canada but not USSR	751	5,702	5,087	10,812	4,133	26,485
Unspecified Soviet export residual	1,562	6,376	11,012	15,844	9,665	44,459
	Percent					
Value reported by Canada as percent of unspecified Soviet export residual	48	89	46	68	43	60

three commodities are equal to or greater than the difference between Soviet imports and Canadian exports on an aggregate level:

	Million US $				
	1970	1971	1972	1973	1974
Soviet imports less Canadian exports of:					
Wheat	17.1	7.2	23.3	9.7	45.8
Barley	0	0	3.7	-0.2	3.7
Wheat flour	21.9	24.4	25.7	28.2	40.1
Total	39.0	31.6	52.7	37.7	89.6
Difference between total Soviet imports and total Canadian exports	33.2	26.4	54.6	37.3	78.2

Table 19

Comparison of Soviet Imports and Canadian Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	1,304	4,369	7,087	1,311	2,129	16,200
Canada	1,417	4,093	8,474	2,981	3,399	20,364
USSR as per-cent of Canada	*92*	*107*	*84*	*44*	*63*	*80*
CTN 2						
USSR	4,767	307	6,273	2,345	2,063	15,755
Canada	4,063	897	3,448	1,974	697	11,079
USSR as per-cent of Canada	*117*	*34*	*182*	*119*	*296*	*142*
CTN 3						
USSR	1,837	2,580	3,803	1,998	939	11,157
Canada	568	1,305	951	621	9,010	12,455
USSR as per-cent of Canada	*323*	*198*	*400*	*322*	*10*	*90*
CTN 4						
USSR	0	0	0	0	0	0
Canada	32	1	67	72	401	573
CTN 5						
USSR	0	537	0	0	0	537
Canada	7,735	7,511	3,173	949	4,802	24,170
USSR as per-cent of Canada		*7*				*2*
CTN 6, 7						
USSR	100,495	117,881	296,606	295,132	59,696	869,810
Canada	83,013	110,463	268,445	284,782	10,415	757,118
USSR as per-cent of Canada	*121*	*107*	*110*	*104*	*573*	*115*
CTN 8						
USSR	21,951	24,390	25,728	28,162	40,084	140,315
Canada	222	231	301	646	1,150	2,550
USSR as per-cent of Canada	*9,888*	*10,558*	*8,548*	*4,359*	*3,486*	*5,503*
CTN 9						
USSR	42	40	45	38	53	218
Canada	114	106	119	134	236	709
USSR as per-cent of Canada	*37*	*38*	*38*	*28*	*22*	*31*
Total CTN 1-9						
USSR	130,397	150,103	339,542	328,986	104,964	1,053,992
Canada	97,164	124,607	284,978	292,159	30,110	829,018
USSR as per-cent of Canada	*134*	*120*	*119*	*113*	*349*	*127*

A large share of these commodities is purchased in Canada on Soviet account and shipped directly to a third country. In Soviet trade books they appear first as an import from Canada and then as a Soviet export. Canada, on the other hand, reports the commodities as exports to the country to which they are shipped. For example, wheat flour bought by the USSR for delivery to Cuba is considered as an export to Cuba by Canada.

67. On a 1-digit level, the discrepancies related to wheat and barley explain why Soviet imports of raw materials for the production of foodstuffs (CTN 6 and 7) exceed Canadian exports, while the handling of wheat flour shipments is responsible for the huge difference in CTN 8. Discrepancies between Soviet and Canadian reporting with regard to several other products probably originate in country identification difficulties caused by intermediate commercial transactions. Canadian exports of sulfur (CTN 25006) are less than one-half the reported Soviet imports by volume in 1970-74 and largely account for the anomaly in CTN 2–fuels, mineral raw materials, and metals. Reported Canadian shipments of synthetic rubber (CTN 35002) over the 5-year period are only one-fourth of recorded Soviet imports.

France

Soviet Exports and French Imports

68. France values its imports c.i.f., so French import figures consistently exceed Soviet exports (Tables 11 and 20). The difference has narrowed somewhat because of a jump in Soviet export prices for raw materials in 1973-74 and, quite probably, French reexports of Soviet petroleum and petroleum products. As a result of the price increases, transport and insurance cost declined as a percent of Soviet export prices. The ratio of weighted French unit prices to Soviet unit prices for selected French imports dropped from 147 percent in 1970 to 116 percent in 1974 (Table 21). Divergent price trends for petroleum and petroleum products (CTN 21 and 22) were largely responsible; French unit prices for CTN 21 and 22 imports were below Soviet unit prices in 1974.[19]

19. Unit prices for French imports of Soviet sunflower seed oil also are less than Soviet unit prices. Since most of the Soviet oil exported to the West is bought by middlemen–in particular, Unilever–and then resold to Western countries, the unit price the Soviets receive for their oil does not necessarily match the unit price paid by the West. This is especially true during periods of large price changes. In addition, the quantity of sunflower seed oil reported by the USSR as exported to France since 1972 is less than the amount recorded by the French as imported from the Soviets. Again, this stems from the way in which sunflower seed oil is bought and sold. A change in the destination of a shipment is not uncommon–especially when middlemen are involved; consequently, the Soviets do not always know the country of consumption of their exports.

Table 20

Comparison of Soviet Exports and French Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	6,837	6,800	9,945	17,951	19,238	60,771
France	7,770	8,759	9,915	16,252	21,385	64,081
USSR as percent of France	*88*	*78*	*100*	*110*	*90*	*95*
CTN 2						
USSR	74,51[illegible]	119,650	92,37[illegible]	161,410	209,229	657,175
France	123,121	156,023	157,271	237,109	255,655	929,179
USSR as percent of France	*61*	*77*	*59*	*68*	*82*	*71*
CTN 3						
USSR	1,821	3,518	4,057	6,457	21,495	37,348
France	3,122	3,849	5,135	13,159	44,819	70,084
USSR as percent of France	*58*	*91*	*79*	*49*	*48*	*53*
CTN 4						
USSR	0	0	0	0	0	0
France	6	40	36	96	63	241
CTN 5						
USSR	32,021	47,394	70,558	108,065	149,532	407,570
France	50,744	58,604	86,678	124,857	177,310	498,193
USSR as percent of France	*63*	*81*	*81*	*87*	*84*	*82*
CTN 6, 7						
USSR	2,349	2,311	3,773	4,885	4,604	17,922
France	1,081	2,015	3,172	1,739	687	8,694
USSR as percent of France	*217*	*115*	*119*	*281*	*670*	*206*
CTN 8						
USSR	11,519	19,749	16,998	21,647	66,318	136,231
France	11,563	24,854	22,445	27,826	73,391	160,079
USSR as percent of France	*100*	*79*	*76*	*78*	*90*	*85*
CTN 9						
USSR	2,712	3,171	6,072	7,667	9,014	28,636
France	3,492	3,678	6,596	8,901	11,323	33,990
USSR as percent of France	*78*	*86*	*92*	*86*	*80*	*84*
Total CTN 1-9						
USSR	131,769	202,593	203,777	328,082	479,428	1,345,648
France	200,899	257,822	291,248	429,939	584,633	1,764,541
USSR as percent of France	*66*	*79*	*70*	*76*	*82*	*76*

Table 21

French and Soviet Unit Prices for Selected Soviet Exports: French Unit Prices as a Percent of Soviet Unit Prices

US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 20001, 20002: coal					
USSR exports	16.16	17.75	18.02	19.32	25.88
French imports	27.49	27.78	28.42	31.25	40.46
Percent	*170*	*157*	*158*	*162*	*156*
CTN 21,22: petroleum products					
USSR exports	13.42	16.87	16.92	23.17	81.73
French imports	17.29	23.68	23.94	26.92	73.28
Percent	*129*	*140*	*141*	*116*	*90*
CTN 23002: liquefied gas					
USSR exports	19.68	20.61	21.76	23.61	79.01
French imports	34.33	40.62	48.25	52.43	116.91
Percent	*174*	*197*	*222*	*222*	*148*
CTN 24004: chrome ore					
USSR exports	41.23	52.97	44.77	39.62	48.08
French imports	43.56	58.33	50.44	44.82	52.24
Percent	*106*	*110*	*113*	*113*	*109*
CTN 25001: asbestos brands					
USSR exports	102.00	98.32	108.81	117.78	142.34
French imports	111.40	114.15	122.36	140.67	143.49
Percent	*109*	*116*	*112*	*119*	*101*
CTN 50004: beams					
USSR exports	20.49	23.80	21.11	32.90	55.23
French imports	37.64	43.03	42.41	48.11	74.31
Percent	*184*	*181*	*201*	*146*	*135*
CTN 50101: coniferous sawn lumber					
USSR exports	77.11	82.21	83.41	124.08	223.23
French imports	105.73	108.51	109.27	154.42	268.02
Percent	*137*	*132*	*131*	*124*	*120*
CTN 50502: cellulose sulfite					
USSR exports	139.17	152.26	146.54	179.78	272.44
French imports	141.66	154.11	151.44	182.36	283.29
Percent	*102*	*101*	*103*	*101*	*104*
CTN 50503: cellulose sulfate					
USSR exports	105.52	128.38	142.83	173.62	293.63
French imports	122.77	136.71	136.97	164.44	282.31
Percent	*116*	*106*	*96*	*95*	*96*
CTN 84109: sunflower seed oil					
USSR exports	311	368	324	413	886
French imports	316	384	316	409	862
Percent	*102*	*104*	*98*	*99*	*97*
Weighted average of French unit prices as a percent of Soviet unit prices[2]	*147*	*142*	*143*	*126*	*116*

1. These commodities account for one-half to two-thirds of French imports from the USSR.
2. The percentages are weighted by the corresponding values of French imports.

69. Comparison of Soviet and French data for Soviet oil and oil product deliveries suggests strongly that some of these imports have been reexported recently by France.[20] Since 1973, Soviet exports have been consistently larger than French imports; by volume, imports were only 86 percent of reported Soviet deliveries. This discrepancy in CTN 21 and 22 trade has narrowed the gap between Soviet CTN 2 exports and French imports and, of course, the overall difference between Soviet exports and French imports.

70. French imports usually have a higher value than Soviet exports on a 1-digit CTN level because of c.i.f.-f.o.b. differences and incomplete Soviet reporting. Reexports of Soviet machinery and equipment by France most likely account for Soviet CTN 1 exports being larger than French imports in 1972 and 1973. As a case in point, Soviet exports of cars are greater in number than that reported by the French.

71. Although the USSR did not publish a commodity breakdown for CTN 4, French statistics show that improved or reconstituted wood (SITC 6314) and lime, cement, and fabricated building materials (SITC 661) account for the bulk of the trade. The Soviets apparently lump these exports in the "unspecified" export residual.

72. Nevertheless, the largest share of the export residual consists of Soviet shipments of platinum and platinum group metals, nickel, and in recent years isotopes and amorphous chemicals; the latter accounted for one-fourth the residual in 1974 (Table 22). In addition, Soviet exports of iron and steel (SITC 67), refined copper (SITC 68212), and zinc (SITC 686) were excluded from the Soviet breakdown before 1974. The Soviets reported copper and zinc exports to France in 1974 but continued to omit iron and steel shipments.

Soviet Imports and French Exports

73. The inclusion of imported technology in Soviet trade data together with the reexport (or transshipment) of fuels, minerals, and metals (CTN 2) by France and the reexport of French raw materials for the production of foodstuffs (CTN

20. France has the capacity to refine imports of crude oil in bonded refineries and then export the output. Oil imported for this purpose is included in special trade statistics as an import and the refined product is considered an export. Consequently, any crude imported from the USSR and processed in French bonded refineries would be included in French trade statistics.

Table 22

Analysis of Unidentified Soviet Exports to France

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	134	98	429	101	0	762
Other precious stones (SITC 6673)	0	1	0	0	12	13
Silver (SITC 6311)	0	0	0	4	0	4
Platinum and platinum group metals (SITC 6812)	1,960	1,868	4,706	11,721	12,910	33,165
Silver and platinum ore (SITC 285)	0	0	0	83	0	83
Jewelry of gold, silver, and platinum (SITC 8971)	20	20	1	2	1	44
Nickel (SITC 683)	12,520	1,592	3,453	6,819	11,037	35,421
Isotopes and amorphous chemicals (SITC 515)	160	172	178	6,156	12,165	18,831
Iron and steel (SITC 67)	2,888	934	3,367	853	792	8,834
Refined copper (SITC 68212)	0	1,062	6,668	24,129	[1]	31,859
Zinc (SITC 686)	0	392	1,955	4,178	[1]	6,525
Imports identified by France but not by USSR	**17,682**	**6,139**	**20,757**	**54,046**	**36,917**	**135,541**
Unspecified Soviet export residual	**8,232**	**13,296**	**30,963**	**39,388**	**45,800**	**137,679**
	Percent					
Value reported by France as percent of unspecified Soviet export residual	**215**	**46**	**67**	**137**	**81**	**98**

1. Reported in Soviet data.

6 and 7) to third countries explain why Soviet imports exceed French exports in 1960-74 (Table 2). The difference between Soviet machinery and equipment (CTN 1) imports and French exports is equivalent to more than one-half the aggregate discrepancy in 1970-74 (Table 23). The remainder is largely explained by the amounts by which Soviet CTN 2 and CTN 6 and 7 imports exceed French exports and, in some years, by Soviet "unspecified" import residuals:

	Million US $				
	1970	1971	1972	1973	1974
Soviet imports less French exports of:					
Machinery and equipment (CTN 1)	21.9	28.4	33.7	12.8	48.6
Fuels, minerals, and metals (CTN 2)	6.1	2.1	-1.9	0.5	0.8
Live animals not for slaughter and raw materials for the production of foodstuffs (CTN 6, and 7)	2.1	20.8	23.0	9.1	13.1
Total	**30.1**	**51.3**	**54.8**	**22.4**	**62.5**
Difference between total Soviet imports and total French exports	**45.5**	**56.7**	**83.4**	**32.8**	**60.8**

74. French deliveries of rolled ferrous metals (CTN 264)—especially sheet and transformer steel—were 15 percent less than reported Soviet imports from France in tonnage over the 5-year period. The difference probably stems from reexports (or transshipments) that are credited to France by the USSR. The discrepancy in CTN 6 and 7 is largely accounted for by the treatment of imports of wheat and barley. Soviet imports of French wheat are twice French exports in terms of value and quantity, and barley imports are 20 percent greater. The missing grain presumably was bought by Soviet foreign trade enterprises and shipped directly to third countries, with the bulk of the wheat going to Africa and the barley probably to Eastern Europe or Cuba.

Table 23

Comparison of Soviet Imports and French Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	173,359	173,178	159,297	190,643	356,481	1,052,958
France	151,419	144,788	125,632	177,820	307,895	907,554
USSR as per cent of France	*114*	*120*	*127*	*107*	*116*	*116*
CTN 2						
USSR	52,893	30,328	45,455	127,185	134,534	390,395
France	46,882	28,269	47,387	126,674	133,707	382,859
USSR as per cent of France	*113*	*107*	*96*	*100*	*101*	*102*
CTN 3						
USSR	14,998	12,390	22,624	23,492	38,899	112,403
France	15,276	17,437	24,050	37,342	44,193	138,298
USSR as per cent of France	*98*	*71*	*94*	*63*	*88*	*81*
CTN 4						
USSR	990	824	635	987	1,287	4,723
France	1,439	2,704	4,146	3,489	7,932	19,710
USSR as per cent of France	*69*	*30*	*15*	*28*	*16*	*24*
CTN 5						
USSR	21,326	23,979	36,693	42,109	37,944	162,051
France	19,787	18,262	26,407	46,263	41,803	152,522
USSR as per cent of France	*108*	*131*	*139*	*91*	*91*	*106*
CTN 6, 7						
USSR	2,675	24,630	76,986	92,115	25,606	222,012
France	540	3,794	53,968	83,044	12,523	153,869
USSR as per cent of France	*495*	*649*	*143*	*111*	*204*	*144*
CTN 8						
USSR	5,434	3,631	5,718	52,682	67,225	134,690
France	7,607	4,412	8,372	49,154	79,341	148,886
USSR as per cent of France	*71*	*82*	*68*	*107*	*85*	*90*
CTN 9						
USSR	32,477	28,520	51,824	45,217	17,938	175,976
France	29,863	36,712	50,328	49,918	28,300	195,121
USSR as per cent of France	*109*	*78*	*103*	*91*	*63*	*90*
Total CTN 1-9						
USSR	304,154	297,480	399,230	574,430	679,915	2,255,209
France	272,753	256,378	340,290	573,904	655,694	2,098,819
USSR as per cent of France	*112*	*116*	*117*	*100*	*104*	*107*

Italy

Soviet Exports and Italian Imports

75. As in France, c.i.f.-f.o.b. valuation differences drive a wedge between the value of Italian imports and the reported value of Soviet exports (Tables 1 and 24). But the imbalance began to right itself in 1973. By 1975 the scale had tipped in favor of Soviet exports

76. Rising prices of Soviet raw material exports in 1973 may have had the same effect on Soviet-Italian trade as they did on Soviet-French trade. The higher prices narrowed the margin between Soviet exports and Italian imports. The effect of rising prices for Soviet raw materials petered out in 1974, however. A weighted average of ratios of Italian to Soviet unit prices for selected Italian imports fell from 123 percent in 1972 to 111 percent in 1973. The following year, the average ratio climbed to 114 percent (Table 25). In any event, divergent price trends do not explain why the average ratio dropped so sharply in 1971.

77. Italian reexports of Soviet petroleum and petroleum products (CTN 21 and 22) in 1973-74 seem to have had a key role in reducing the discrepancies between the values of USSR exports and Italian imports. Before 1973, the value of Soviet exports in CTN 21 and 22 was less than Italian imports, as expected, but in 1973 Italian import figures dropped below Soviet exports by nearly $5 million and by roughly $45 million in 1974. Apparently a share of Soviet exports of oil and oil products bypassed Italian customs and were reexported to a third country without Soviet knowledge of the country of final consumption.

78. On a 1-digit level, c.i.f.-f.o.b. valuation differences, and to a lesser extent, the incompleteness of the USSR's commodity breakdown, cause Italian imports to outstrip Soviet exports in all categories except CTN 6 and 7 and CTN 9 in 1970-74 (Table 24). For 1970-74 as a whole, nearly one-half of the "unspecified" export residual (3 percent of Soviet exports to Italy) consists of commodities omitted from USSR foreign trade books--especially platinum and platinum group metals and nickel (Table 26). Nonetheless, in 1971-72 and 1974, most of the residual remains unidentified. In CTN 9, Italian imports were reduced by the reexport of cotton and cotton fabrics (CTN 900) originally imported from the USSR; Soviet CTN 900 exports were nearly three times greater than comparable Italian imports in 1970-74.

Table 24

Comparison of Soviet Exports and Italian Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	5,184	3,077	6,061	12,408	17,535	44,265
Italy	5,461	3,264	6,238	13,377	16,007	44,347
USSR as per-cent of Italy	*95*	*94*	*97*	*93*	*110*	*100*
CTN 2						
USSR	163,767	204,568	203,568	315,424	647,621	1,534,948
Italy	219,554	243,871	257,508	334,480	637,464	1,692,877
USSR as per-cent of Italy	*75*	*84*	*79*	*94*	*102*	*91*
CTN 3						
USSR	4,036	3,786	4,946	9,998	22,417	45,183
Italy	4,138	4,168	5,510	9,947	24,784	48,547
USSR as per-cent of Italy	*98*	*91*	*90*	*101*	*90*	*93*
CTN 4						
USSR	296	299	374	405	422	1,796
Italy	492	600	473	837	1,780	4,182
USSR as per-cent of Italy	*60*	*50*	*79*	*48*	*24*	*43*
CTN 5						
USSR	25,867	25,160	45,228	59,235	69,804	225,294
Italy	38,179	29,742	49,113	74,266	110,230	301,530
USSR as per-cent of Italy	*68*	*85*	*92*	*80*	*63*	*75*
CTN 6, 7						
USSR	4,813	11,772	1,625	3,272	3,374	24,856
Italy	9,361	11,361	1,033	571	252	22,578
USSR as per-cent of Italy	*51*	*104*	*157*	*573*	*1,339*	*110*
CTN 8						
USSR	1,295	1,453	1,321	1,963	1,622	7,654
Italy	1,574	1,590	2,347	2,787	4,924	13,222
USSR as per-cent of Italy	*82*	*91*	*56*	*70*	*33*	*58*
CTN 9						
USSR	918	1,378	3,031	3,359	5,047	13,733
Italy	591	812	1,201	1,862	4,016	8,482
USSR as per-cent of Italy	*155*	*170*	*252*	*180*	*126*	*162*
Total CTN 1-9						
USSR	206,176	251,493	266,154	406,062	767,843	1,897,728
Italy	279,350	295,408	323,423	438,127	799,457	2,135,765
USSR as per-cent of Italy	*74*	*85*	*82*	*93*	*96*	*89*

Table 25

Italian and Soviet Unit Prices for Selected Soviet Exports: Italian Unit Prices as a Percent of Soviet Unit Prices

US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 19501: passenger cars					
USSR exports	1,095	712	752	788	1,271
Italian imports	836	855	1,168	871	981
Percent	*76*	*120*	*155*	*111*	*77*
CTN 20001, 20002: coal					
USSR exports	8.40	16.71	15.57	16.34	21.55
Italian imports	12.18	20.97	19.63	20.70	31.68
Percent	*145*	*125*	*126*	*127*	*129*
CTN 21, 22: petroleum products					
USSR exports	10.54	14.53	15.70	23.75	76.79
Italian imports	13.26	17.02	18.31	24.73	84.62
Percent	*126*	*117*	*117*	*104*	*110*
CTN 24001: iron ore					
USSR exports	4.93	5.33	4.80	5.10	4.94
Italian imports	7.81	9.44	7.44	8.33	9.89
Percent	*158*	*177*	*155*	*163*	*200*
CTN 24004: chrome ore					
USSR exports	34.42	48.17	44.91	39.52	52.71
Italian imports	44.13	55.63	52.47	44.75	56.28
Percent	*128*	*115*	*117*	*113*	*107*
CTN 24901: iron pyrites					
USSR exports	5.95	4.73	3.74	3.09	6.64
Italian imports	12.67	12.74	12.08	12.04	15.53
Percent	*213*	*269*	*323*	*390*	*234*
CTN 25001: asbestos brand					
USSR exports	116.12	131.24	151.58	149.39	167.08
Italian imports	130.00	138.61	162.71	157.32	107.99
Percent	*112*	*106*	*107*	*105*	*65*
CTN 26001: pig iron					
USSR exports	62.59	49.02	40.98	55.96	131.80
Italian imports	59.10	62.31	49.58	66.06	130.56
Percent	*94*	*127*	*121*	*118*	*99*
CTN 261: ferrol alloys					
USSR exports	165.48	193.62	133.37	175.03	313.19
Italian imports	198.60	247.31	166.76	171.00	464.57
Percent	*120*	*128*	*125*	*98*	*148*
CTN 26201: ferrous metal scrap					
USSR exports	50.44	34.22	35.31	76.09	133.00
Italian imports	53.91	42.73	41.06	75.29	137.06
Percent	*107*	*125*	*116*	*99*	*103*
CTN 50502: cellulose					
USSR exports	131.29	155.06	164.97	169.57	338.61
Italian imports	138.28	166.44	180.59	168.37	307.88
Percent	*105*	*107*	*169*	*99*	*91*
Weighted average of Italian unit prices as a percent of Soviet unit prices[2]	*129*	*118*	*123*	*111*	*114*

1. These commodities account for three-fourths of Italy's imports from the USSR.
2. The percentages are weighted by the corresponding values of Italian imports.

Table 26

Analysis of Unidentified Soviet Exports to Italy

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	0	0	0	0	0	0
Other precious stones (SITC 6673)	8	8	22	177	100	315
Silver (SITC 6811)	3,380	771	255	4,400	0	8,806
Platinum and platinum group metals (SITC 6812)	203	126	1,259	2,007	1,645	5,240
Jewelry of gold, silver, and platinum (SITC 8971)	0	32	34	34	30	130
Nickel (SITC 683)	2,695	1,457	222	1,972	3,600	9,946
Isotopes and amorphous chemicals (SITC 515)	1	0	0	1	0	2
Imports identified by Italy but not by USSR	**6,287**	**2,394**	**1,792**	**8,591**	**5,375**	**24,439**
Unspecified Soviet export residual	**5,491**	**7,507**	**9,726**	**11,763**	**20,989**	**55,476**
	Percent					
Value reported by Italy as percent of unspecified Soviet export residual	**114**	**32**	**18**	**73**	**26**	**44**

Soviet Imports and Italian Exports

79. Italian exports to the USSR fell short of Soviet imports from Italy in 1960-75 in all but two years (Table 2). The treatment of machinery and equipment (CTN 1) accounts for most of the difference, although Italian reexports to the USSR or--less likely--Soviet purchases for shipment to a third country have added to the imbalance since 1972.

Table 27

Comparison of Soviet Imports and Italian Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	199,366	151,542	145,734	199,099	207,833	903,574
Italy	190,548	149,657	133,712	159,413	176,981	810,311
USSR as percent of Italy	*105*	*101*	*109*	*125*	*117*	*112*
CTN 2						
USSR	2,107	17,460	31,794	90,185	252,427	393,973
Italy	7,525	29,748	36,504	100,244	253,285	427,306
USSR as percent of Italy	*28*	*59*	*87*	*90*	*100*	*92*
CTN 3						
USSR	23,237	25,075	28,010	33,688	122,984	232,994
Italy	28,707	28,048	28,162	30,440	98,281	213,638
USSR as percent of Italy	*81*	*89*	*99*	*111*	*125*	*109*
CTN 4						
USSR	0	6,319	4,333	11,298	15,055	37,005
Italy	1,965	4,169	551	940	1,078	8,703
USSR as percent of Italy		*152*	*786*	*1,202*	*1,347*	*425*
CTN 5						
USSR	15,530	20,230	20,730	30,242	49,770	136,502
Italy	19,638	21,737	27,523	38,359	57,180	164,437
USSR as percent of Italy	*79*	*93*	*75*	*79*	*87*	*83*
CTN 6, 7						
USSR	0	0	500	1,473	3,122	5,095
Italy	0	0	0	0	5,007	5,007
USSR as percent of Italy					*62*	*102*
CTN 8						
USSR	8,471	7,841	6,332	2,079	4,089	28,812
Italy	10,581	9,695	8,710	3,404	7,664	40,054
USSR as percent of Italy	*80*	*81*	*73*	*61*	*53*	*72*
CTN 9						
USSR	51,212	50,769	33,745	19,281	18,506	173,513
Italy	48,904	52,435	33,424	18,586	18,184	171,533
USSR as percent of Italy	*105*	*97*	*101*	*104*	*102*	*101*
Total CTN 1-9						
USSR	299,925	279,236	271,178	387,346	673,786	1,911,471
Italy	307,868	395,489	268,586	351,386	617,660	1,840,989
USSR as percent of Italy	*97*	*95*	*101*	*110*	*109*	*104*

80. The Soviet inclusion of technology costs associated with imports has played an important part in the overall discrepancy. In 1970-71, the difference between Soviet imports and Italian exports was more than accounted for by the discrepancy in CTN 1. Since 1971, however, the difference in CTN 1 values has been a declining share of the aggregate discrepancy, probably because the USSR could not identify the origin of Italian reexports of plastic and materials for plastic production (CTN 266) to the USSR. Soviet imports in both commodity categories exceed Italian exports in 1973-74. Reexports probably are also a factor in trade involving building materials and construction parts (CTN 4) and consumer goods (CTN 9). Soviet imports exceed the comparable Italian exports in nearly all years, despite the fact that the Soviet commodity breakdown is incomplete (Table 27).

	Million US $				
	1970	1971	1972	1973	1974
Difference between Soviet imports and Italian exports of machinery and equipment (CTN 1)	8.8	1.9	12.0	39.7	30.9
Difference between total Soviet imports and total Italian exports	4.8	-4.9	16.4	59.1	94.6

Japan

Soviet Exports and Japanese Imports

81. C.i.f. valuation of Japanese imports stands as the predominant reason for Japanese imports exceeding Soviet exports on both an aggregate and 1-digit CTN level (Tables 1 and 28). Reexports of Soviet goods are not an offset—as they were in the case of France and Italy—because Japan uses a general system to record its trade flows, thus including reexports. Indeed, reexporting can have the effect of increasing the gap between Soviet and Japanese figures if the USSR credits the goods reexported by Japan to the country receiving them and not to Japan.

82. Soviet price increases for a number of key raw material exports in 1973-74 seem to have had some impact on the gap between Soviet and Japanese

Table 28

Comparison of Soviet Exports and Japanese Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	3,449	5,796	6,425	5,972	6,241	27,883
Japan	7,406	10,148	8,042	8,737	11,145	45,478
USSR as per-cent of Japan	*47*	*57*	*80*	*68*	*56*	*61*
CTN 2						
USSR	119,595	134,120	99,723	208,611	314,577	876,626
Japan	213,915	219,173	245,963	468,198	580,810	1,728,059
USSR as per-cent of Japan	*56*	*61*	*41*	*45*	*54*	*51*
CTN 3						
USSR	9,194	11,916	13,575	21,876	38,134	94,695
Japan	10,291	12,274	12,778	20,405	37,427	93,175
USSR as per-cent of Japan	*89*	*97*	*106*	*107*	*102*	*102*
CTN 4						
USSR	112	212	167	176	326	993
Japan	5	1	20	159	214	399
USSR as per-cent of Japan	*2,240*	*21,200*	*835*	*111*	*152*	*249*
CTN 5						
USSR	172,455	206,329	266,862	458,723	658,581	1,762,950
Japan	238,312	243,973	315,920	551,058	745,400	2,094,663
USSR as per-cent of Japan	*72*	*85*	*84*	*83*	*88*	*84*
CTN 6, 7						
USSR	1,672	2,052	1,707	3,627	6,607	15,665
Japan	91	108	55	135	252	641
USSR as per-cent of Japan	*1,837*	*1,900*	*3,104*	*2,687*	*2,622*	*2,444*
CTN 8						
USSR	4,810	4,106	3,601	9,700	13,270	35,487
Japan	8,218	7,445	7,829	21,684	37,176	82,352
USSR as per-cent of Japan	*59*	*55*	*46*	*45*	*36*	*43*
CTN 9						
USSR	3,145	2,933	2,519	3,015	5,267	16,879
Japan	2,841	2,803	3,296	5,855	6,337	21,132
USSR as per-cent of Japan	*111*	*105*	*76*	*51*	*83*	*80*
Total CTN 1-9						
USSR	314,430	367,465	194,579	711,700	1,043,003	2,831,177
Japan	481,079	495,925	593,903	1,076,231	1,418,761	4,065,899
USSR as per-cent of Japan	*65*	*74*	*66*	*66*	*74*	*70*

data. By 1975, their influence had dissipated, and the margin was restored. A weighted average of the ratios of Japanese to Soviet unit prices for selected Japanese imports does not track well with the percent differences on an aggregate level (Table 29). The weighted average steadily declined from 1971 through 1974. A comparison of Soviet and Japanese data–even on a commodity level–offers little, however, in the way of an explanation.

83. As expected, Japanese imports on a 1-digit CTN level generally exceed Soviet exports (Table 28). One of the exceptions (Soviet chemicals, fertilizers, and rubber–CTN 3–exports are greater than Japanese imports) results from USSR deliveries of chemical products (CTN 30) being substantially larger than recorded Japanese imports in 1972-74. With regard to Soviet exports of building materials and construction parts (CTN 4), the difference probably stems from the difficulty in matching the appropriate SITC category with magnesite powder (CTN 4040401), which is the sole commodity reported under category 4 in the Soviet trade handbook. Similarly, because of a concordance problem, Soviet exports of CTN 6 and 7 (animals not for slaughter and raw materials for the production of foodstuffs) are larger than Japanese imports. The USSR reports whale meat under CTN 7, but in Western data this commodity cannot be broken out from meat, fresh, chilled, or frozen. Consequently, it is included in CTN 8 (foodstuffs).

84. The commodities traditionally omitted from the USSR's commodity breakdown along with Soviet exports of zinc more than exhaust the "unspecified" export residual associated with Soviet-Japanese trade (Table 30). USSR shipments of platinum and platinum group metals account for more than four-fifths of the residual in 1970-74.

Soviet Imports and Japanese Exports

85. The margin between Japanese exports and Soviet imports in large part represents the inclusion of the cost of technology in Soviet machinery and equipment (CTN 1) imports (Table 2). Beginning in 1972, however, there is some evidence that this upward bias may have been offset by the USSR's crediting goods reexported by Japan to a third country, presumably the country of origin. By 1974, when Soviet imports of machinery and equipment fell below corresponding Japanese exports by $21 million, total Soviet imports dropped below total Japanese exports by more than $75 million.

Table 29

Japanese and Soviet Unit Prices for Selected Soviet Exports: Japanese Unit Prices as a Percent of Soviet Unit Prices

US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 20001: coal					
USSR exports	12.11	14.86	15.77	16.85	29.90
Japanese imports	15.34	18.35	19.48	20.76	33.38
Percent	*127*	*123*	*124*	*123*	*112*
CTN 21, 22: petroleum products					
USSR exports	12.39	15.05	18.66	27.48	75.91
Japanese imports	17.91	23.88	23.37	27.57	84.75
Percent	*145*	*159*	*125*	*100*	*112*
CTN 24001: iron ore					
USSR exports	3.78	4.21	4.24	4.32	5.16
Japanese imports	10.35	11.44	11.78	12.34	13.89
Percent	*274*	*272*	*278*	*286*	*269*
CTN 24002: manganese ore					
USSR exports	5.44	5.02	6.36	8.53	15.36
Japanese imports	20.86	19.49	18.77	20.45	33.48
Percent	*383*	*388*	*295*	*240*	*218*
CTN 24004: chrome ore					
USSR exports	21.59	37.60	36.46	26.97	49.27
Japanese imports	38.74	52.60	52.38	49.32	61.30
Percent	*179*	*140*	*144*	*183*	*124*
CTN 25001: asbestos brands					
USSR exports	114.67	112.37	123.18	134.44	159.13
Japanese imports	119.84	118.81	130.31	147.42	164.33
Percent	*105*	*106*	*106*	*110*	*103*
CTN 26001: pig iron					
USSR exports	59.51	34.21	32.56	60.90	115.75
Japanese imports	74.82	56.70	47.78	74.74	123.46
Percent	*126*	*166*	*147*	*123*	*107*
CTN 26201: ferrous metal scrap					
USSR exports	54.97	36.87	31.59	77.73	158.95
Japanese imports	60.86	45.36	40.39	84.63	178.78
Percent	*111*	*123*	*128*	*109*	*112*
CTN 27008: aluminum					
USSR exports	523	444	405	453	757
Japanese imports	509	468	412	455	673
Percent	*97*	*105*	*102*	*100*	*89*
CTN 500: round timber					
USSR exports	20.53	21.39	21.47	37.21	53.84
Japanese imports	27.67	27.62	28.29	45.82	62.34
Percent	*135*	*129*	*132*	*123*	*116*
Weighted average of Japanese unit prices as a percent of Soviet unit prices[2]	*139*	*140*	*135*	*124*	*117*

1. These commodities account for one-half to two-thirds of Japanese imports from the USSR.
2. The percentages are weighted by the corresponding values of Japanese imports.

Table 30

Analysis of Unidentified Soviet Exports to Japan

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	648	837	2,619	11,141	7,098	22,343
Other precious stones (SITC 6673)	81	64	22	350	170	687
Silver (SITC 6811	0	0	123	0	0	123
Platinum and platinum group metals (SITC 6812)	41,689	55,246	91,149	150,945	168,453	507,482
Jewelry of gold, silver, and platinum (SITC 8971)	12	2	2	534	366	916
Nickel (SITC 683)	20,041	13,270	12,813	14,503	17,036	77,663
Isotopes and amorphous chemicals (SITC 515)	16	31	13	54	150	264
Zinc (SITC 686)	192	0	0	2,772	7,428	10,392
Imports identified by Japan but not by USSR	**62,679**	**69,450**	**106,741**	**180,299**	**200,701**	**619,870**
Unspecified Soviet export residual	**64,903**	**51,868**	**67,278**	**128,000**	**152,521**	**464,570**
	Percent					
Value reported by Japan as percent of unspecified Soviet export residual	**97**	**134**	**159**	**141**	**132**	**133**

Table 31

Comparison of Soviet Imports and Japanese Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	118,973	139,830	240,554	215,769	247,335	962,461
Japan	117,902	125,068	208,929	193,422	267,987	913,308
USSR as per cent of Japan	*101*	*112*	*115*	*112*	*92*	*105*
CTN 2						
USSR	51,650	73,520	86,241	131,272	455,293	797,976
Japan	54,728	84,346	95,993	154,487	507,876	897,430
USSR as per cent of Japan	*94*	*87*	*90*	*85*	*90*	*89*
CTN 3						
USSR	35,317	37,080	34,598	29,130	83,617	219,742
Japan	43,391	52,474	52,337	41,564	124,092	313,858
USSR as per cent of Japan	*81*	*71*	*66*	*70*	*67*	*70*
CTN 4						
USSR	2,608	3,310	4,204	3,244	4,697	18,063
Japan	3,047	3,525	11,204	7,703	10,786	36,265
USSR as per cent of Japan	*86*	*94*	*38*	*42*	*44*	*50*
CTN 5						
USSR	40,175	44,296	60,885	28,125	71,406	244,887
Japan	40,833	43,720	64,258	34,675	78,707	262,193
USSR as per cent of Japan	*98*	*101*	*95*	*81*	*91*	*93*
CTN 6, 7						
USSR	0	0	0	0	0	0
Japan	1	282	27	21	0	331
CTN 8						
USSR	481	194	154	494	417	1,740
Japan	380	340	315	986	914	2,935
USSR as per cent of Japan	*127*	*57*	*49*	*50*	*46*	*59*
CTN 9						
USSR	78,848	70,809	76,078	64,901	112,906	403,542
Japan	80,676	67,993	71,114	51,732	111,339	382,854
USSR as per cent of Japan	*98*	*104*	*107*	*125*	*101*	*105*
Total CTN 1-9						
USSR	328,053	369,039	502,714	472,935	975,670	2,648,411
Japan	340,958	377,748	504,177	484,590	1,101,701	2,809,174
USSR as per cent of Japan	*96*	*98*	*100*	*98*	*89*	*94*

	Million US $				
	1970	1971	1972	1973	1974
Difference between Soviet imports and Japanese exports of machinery and equipment (CTN 1)	1.1	14.8	31.6	22.3	[illegible] 7
Difference between Soviet imports and Japanese exports of consumer goods (CTN 9)	-1.8	2.8	5.0	13.2	1.6
Total	-0.7	17.6	36.6	35.5	-19.1
Total differences between Soviet imports and Japanese exports	4.4	18.1	20.8	18.1	-75.4
Possible Japanese reexports not credited to Japan by the USSR	-5.1	-0.5	15.8	17.4	56.3

86. The possible reexports not credited to Japan in Soviet import statistics are probably in the CTN 1, CTN 2, or CTN 3 categories–especially iron and steel products (SITC 67) and plastic materials (SITC 58). Soviet imports are less than reported Japanese deliveries in the respective 1-digit categories, and the export-import differences have increased steadily (Table 31).[21]

Netherlands

Soviet Exports and Netherlands Imports

87. In the Netherlands, as in Belgium-Luxembourg, the treatment of reexports explains why Soviet exports exceed Dutch imports (Tables 1 and 32).[22] Because

21. The Soviet CTN 1 residual of $75 million in 1974 for machinery imports from Japan--the difference between the reported CTN 1 total and the sum of the commodities reported by the USSR–makes it impractical to identify the Japanese machinery exports that account for the discrepancy between Soviet and Japanese data.

22. Transshipments also play a role, as in Belgium-Luxembourg. If the final destination of Soviet exports passing through the Netherlands were unknown, the Soviets would incorrectly identify the Netherlands as the importing country. This is more of a problem for the Netherlands than for most other countries because of its geographic position.

Table 32

Comparison of Soviet Exports and Netherlands Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	1,509	1,718	2,257	4,788	6,225	16,497
Netherlands	2,098	1,749	2,493	4,976	6,273	17,589
USSR as percent of Netherlands	*72*	*98*	*91*	*96*	*99*	*94*
CTN 2						
USSR	73,880	109,633	129,476	267,600	403,373	983,962
Netherlands	21,059	23,235	42,945	77,626	159,547	324,412
USSR as percent of Netherlands	*351*	*472*	*301*	*345*	*253*	*303*
CTN 3						
USSR	6,408	4,567	4,559	7,475	11,091	34,100
Netherlands	2,899	3,304	2,918	4,011	6,711	19,843
USSR as percent of Netherlands	*221*	*138*	*156*	*186*	*165*	*172*
CTN 4						
USSR	374	407	477	1,023	1,535	3,816
Netherlands	8	6	7	8	13	42
USSR as percent of Netherlands	*4,675*	*6,783*	*6,814*	*12,788*	*11,808*	*9,086*
CTN 5						
USSR	14,421	12,188	14,314	30,647	39,581	111,151
Netherlands	19,551	15,774	18,250	30,766	45,990	130,331
USSR as percent of Netherlands	*74*	*77*	*78*	*100*	*86*	*85*
CTN 6, 7						
USSR	7,120	8,790	3,028	1,744	1,698	22,380
Netherlands	2,761	5,948	2,816	2,150	1,759	15,434
USSR as percent of Netherlands	*258*	*148*	*108*	*81*	*97*	*145*
CTN 8						
USSR	4,655	12,196	4,693	4,596	10,386	36,526
Netherlands	7,783	13,728	8,567	5,558	11,806	47,442
USSR as percent of Netherlands	*60*	*89*	*55*	*83*	*88*	*77*
CTN 9						
USSR	2,906	2,741	2,776	4,317	4,545	17,285
Netherlands	1,568	1,106	1,388	3,020	2,889	9,971
USSR as percent of Netherlands	*185*	*248*	*200*	*143*	*157*	*173*
Total CTN 1-9						
USSR	111,272	152,239	161,577	322,191	478,437	1,225,716
Netherlands	57,727	64,850	79,384	128,115	234,988	565,064
USSR as percent of Netherlands	*193*	*235*	*204*	*251*	*204*	*217*

the Netherlands records trade flows under the special system, a large share of Soviet deliveries--particularly of fuel, minerals, and metals--goes unreported. The value of reexports not only has offset c.i.f.-f.o.b. valuation differences but has created the widest gap between Soviet exports and partner country imports for any of the nine Western countries examined in this study.

88. In this connection, comparisons of a weighted average of unit prices for selected Netherlands imports in 1970-74 with Soviet export unit prices suggest that Netherlands imports would have exceeded Soviet exports at least in 1970-72 because of c.i.f.-f.o.b. differences if reexports were not a factor (Table 33). The average of Netherlands unit prices dropped below the average of Soviet unit prices in 1973-74, however. When the Netherlands withdrew Soviet oil from bonded storage tanks in 1973 and 1974 for domestic consumption, it was presumably valued at older, lower prices. At the same time, the Netherlands reexported higher priced petroleum products. This reinforced the discrepancy stemming directly from reexports, particularly in 1973 when the difference between Soviet exports and Netherlands imports was more than one and one-half times larger than reported Netherlands imports. The differences between Soviet fuel, mineral, and metals (CTN 2) exports and Netherlands CTN 2 imports correspond closely to the overall differences.

	Million US $				
	1970	**1971**	**1972**	**1973**	**1974**
Reported Soviet CTN 2 exports	73.9	109.6	129.5	267.6	403.4
"Unspecified" export residual[1]	56.7	18.4	25.5	29.6	42.0
Total	130.6	128.0	155.0	297.2	445.4
Netherlands CTN 2 imports	21.1	23.2	42.9	77.6	159.5
Difference between Soviet exports and Netherlands imports in the CTN 2 category	109.5	104.8	112.1	219.6	285.9
Difference between total Soviet exports and total Netherlands imports	93.1	105.5	107.2	223.3	284.5

1. All of the "unspecified" export residual in Soviet trade with the Netherlands is assumed to fall in CTN 2.

Table 33

Netherlands and Soviet Unit Prices for Selected Soviet Exports: Netherlands Unit Prices as a Percent of Soviet Unit Prices

Thousand US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 19501: passenger cars					
USSR exports	547	613	588	949	1,238
Netherlands imports	592	673	861	1,147	1,273
Percent	*108*	*110*	*146*	*121*	*102*
CTN 21, 22: petroleum products					
USSR exports	18.12	19.72	20.09	56.85	89.62
Netherlands imports	18.74	21.55	21.96	32.95	80.31
Percent	*103*	*109*	*109*	*58*	*90*
CTN 25013: apatite concentrate					
USSR exports	13.89	13.76	14.32	17.90	56.95
Netherlands imports	16.99	17.76	18.54	21.98	67.46
Percent	*122*	*129*	*129*	*123*	*118*
CTN 27004: zinc					
USSR exports	290	307	381	849	1,396
Netherlands imports	292	323	384	880	1,351
Percent	*101*	*105*	*101*	*104*	*97*
CTN 50004: beams					
USSR exports	20.66	22.63	29.19	29.69	62.19
Netherlands imports	29.79	31.82	38.54	40.60	74.31
Percent	*144*	*141*	*132*	*137*	*119*
CTN 50101: coniferous sawn lumber					
USSR exports	77.25	85.09	81.11	126.45	218.19
Netherlands imports	102.03	114.05	107.82	152.10	281.50
Percent	*132*	*134*	*133*	*120*	*129*
CTN 84109: sunflower seed oil					
USSR exports	290	362	317	371	923
Netherlands imports	286	335	313	353	747
Percent	*99*	*93*	*99*	*95*	*81*
Weighted average of Netherlands unit prices as a percent of Soviet unit prices[2]	***114***	***115***	***115***	***81***	***97***

1. These commodities account for one-half to three-fourth of Netherland imports from the USSR for 1970-74.
2. The percentages are weighted by the corresponding values of Netherlands imports.

89. Copper reexports also figure heavily in the CTN 2 discrepancy (which, on the Soviet side, includes the USSR's unidentified export residual). The residual after accounting for oil and copper most likely is caused by Netherlands reexports of diamonds, platinum, and other commodities traditionally omitted from the Soviet breakdown of commodity exports. Some imports of these commodities appear in the Netherlands special trade statistics, but they represent only a small share of the total Soviet "unspecified" export residual (Table 34).

Table 34

Analysis of Unidentified Soviet Exports to the Netherlands

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	0	0	0	239	0	239
Other precious stones (SITC 6673)	0	0	0	4	95	99
Silver (SITC 6811)	0	0	566	0	0	566
Platinum and platinum group metals (SITC 6812)	170	755	113	1,955	265	3,258
Nickel (SITC 683)	3,490	364	716	998	1,033	6,601
Isotopes and amorphous chemicals (SITC 515)	15	5	2	13	2	37
Imports identified by the Netherlands but not by USSR	**3,675**	**1,124**	**1,397**	**3,209**	**1,395**	**10,800**
Unspecified Soviet export residual	**56,728**	**18,428**	**25,489**	**29,619**	**42,039**	**172,303**
	Percent					
Value reported by the Netherlands as percent of unspecified Soviet export residual	**6**	**6**	**5**	**11**	**3**	**6**

	Million US $				
	1970	1971	1972	1973	1974
Difference between Soviet exports and Netherlands imports of:					
Petroleum and petroleum products (CTN 21, 22)	13.0	15.3	17.8	135.0	136.1
Refined copper (CTN 2700101, 2, 4)	25.8	61.7	51.5	28.8	61.6
Zinc (CTN 27004)	1.9	5.1	10.8	20.6	14.0
Aluminum (CTN 27008)	6.8	0.3	2.8	0.6	19.8
Magnesium (CTN 27012)	3.5	0.8	2.0	1.6	10.2
Total	**51.0**	**83.2**	**84.9**	**186.6**	**241.7**
Difference between Soviet exports, including Soviet residual, and Netherlands imports in the CTN 2 category	**109.5**	**104.8**	**112.1**	**219.6**	**285.9**

90. Inspection of Soviet and Netherlands statistics also indicates that the reexport (or transshipment) of Soviet goods affects trade in several other 1-digit CTN categories. Soviet exports of chemical products–in particular, products of the coke and petrochemical industry (CTN 303) and products used in the production of plastics (CTN 304)–are nearly four times greater than corresponding Netherlands imports, accounting for most of the discrepancy in CTN 3 (chemicals, fertilizers, and rubber). In CTN 4 (building materials and construction parts), exports of pressed wood and shavings tiles (CTN 41202 and 41203) appear in the Soviet commodity breakdown but are not reported as imports by the Netherlands. The excess of Soviet exports of CTN 6 and 7 (live animals not for slaughter and raw materials for the production of foodstuffs) over Netherlands imports in 1970-72 can be traced chiefly to the handling of whale oil (CTN 72401)–more than $8 million. Finally, Soviet deliveries of cotton and cotton fabrics (CTN 900) and narcotics (CTN 960-2) exceed Netherlands imports for 1970-74, accounting for the imbalance in consumer goods (CTN 9).

Soviet Imports and Netherlands Exports

91. Reexports (or transshipments) also produce large disparities between Soviet imports and Netherlands exports. Some machinery (CTN 1), chemical products (CTN 3), and raw materials of vegetable and animal origin (CTN 5) are

Table 35

Comparison of Soviet Imports and Netherlands Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	6,957	20,521	11,229	29,379	61,057	129,143
Netherlands	4,171	9,585	6,762	11,017	52,793	84,328
USSR as percent of Netherlands	*167*	*214*	*166*	*267*	*116*	*153*
CTN 2						
USSR	6,706	9	129	1,443	1,513	9,800
Netherlands	6,081	1,593	1,430	2,832	5,973	17,909
USSR as percent of Netherlands	*110*	*1*	*9*	*51*	*25*	*55*
CTN 3						
USSR	17,907	11,805	16,045	21,229	93,454	160,440
Netherlands	6,450	6,972	13,518	13,507	53,019	93,466
USSR as percent of Netherlands	*278*	*169*	*119*	*157*	*176*	*172*
CTN 4						
USSR	0	0	0	0	0	0
Netherlands	1,935	910	767	502	524	4,638
CTN 5						
USSR	19,127	20,844	27,545	25,992	34,349	127,857
Netherlands	3,984	5,988	17,520	19,558	13,200	60,250
USSR as percent of Netherlands	*480*	*348*	*157*	*133*	*260*	*212*
CTN 6, 7						
USSR	3,670	2,004	4,005	11,286	23,576	44,541
Netherlands	3,435	415	4,421	11,489	18,788	38,548
USSR as percent of Netherlands	*107*	*483*	*91*	*98*	*125*	*116*
CTN 8						
USSR	7,927	8,430	2,848	25,604	2,233	47,042
Netherlands	6,370	8,736	3,757	8,962	6,065	33,890
USSR as percent of Netherlands	*124*	*96*	*76*	*286*	*37*	*139*
CTN 9						
USSR	10,419	12,068	7,997	2,649	8,879	42,012
Netherlands	9,459	6,499	7,012	4,011	3,424	30,405
USSR as percent of Netherlands	*110*	*186*	*114*	*66*	*259*	*138*
Total CTN 1-9						
USSR	72,713	75,682	69,799	117,582	225,060	560,836
Netherlands	41,885	40,698	55,187	71,878	153,786	363,434
USSR as percent of Netherlands	*174*	*186*	*126*	*164*	*146*	*154*

reported as imports from the Netherlands by the Soviets but not as exports by the Netherlands. The results are summarized in Tables 2 and 35.

92. Soviet imports of vessels and vessel-lifting equipment (CTN 192) along with crop and plant-growing installations (CTN 162032) account for much of the differences in CTN 1 (Table 35). Reported Soviet CTN 192 imports in 1970-73 total $25 million but are absent from Netherlands export data. In 1974, Soviet imports of vessels and equipment exceed Netherlands exports by $5 million. The USSR, moreover, recorded purchases of plant-growing installations amounting to $4 million in 1973 and $12 million in 1974; no sales were reported by the Netherlands. In chemicals, the USSR identified the Netherlands as the source of $19 million worth of caustic soda (CTN 30101) in 1970-74, but this does not appear in Netherlands trade data as an export to the USSR. The treatment of caustic soda, together with a $20 million imbalance in antifreeze (CTN 30903) imports, explains why USSR CTN 3 imports exceed Netherlands exports. Finally, the discrepancy in the CTN 5 category stems largely from the fact that Soviet imports of face leather for shoes (CTN 53102) are larger than Netherlands exports by $65 million in 1970-74.

United Kingdom

Soviet Exports and UK Imports

93. As in other Western countries that value imports c.i.f., UK imports from the USSR outstrip Soviet exports mainly because of c.i.f.-f.o.b. valuation differences. But the changing mix of UK-Soviet trade, UK imports of Soviet goods from third countries, and, in recent years, the abrupt increase in Soviet raw material export prices have weakened this tendency (Tables 1 and 36).

94. UK purchases of Soviet diamonds, which account for nearly one-half of total UK imports from the USSR, have consistently pulled down the percentage difference caused by the c.i.f. valuation of the nondiamond share of the trade.[23] A weighted average of ratios of UK to Soviet unit prices for selected commodities that account for over one-half of the nondiamond trade is considerably larger than the difference between Soviet exports and UK imports on an aggregate level (Table 37).

23. Transport and insurance costs for diamonds probably amount to less than 1 percent of their value.

Table 36

Comparison of Soviet Exports and UK Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	3,011	4,578	9,443	17,434	28,871	63,337
UK	4,885	7,364	12,179	23,969	29,219	77,616
USSR as percent of UK	*62*	*62*	*78*	*73*	*99*	*82*
CTN 2						
USSR	25,609	30,524	46,672	87,827	143,256	333,888
UK	318,670	286,122	350,971	517,542	527,473	2,000,778
USSR as percent of UK	*8*	*11*	*13*	*17*	*27*	*17*
CTN 3						
USSR	6,299	7,089	5,270	4,739	9,661	33,058
UK	5,092	5,981	7,639	11,972	13,628	44,312
USSR as percent of UK	*124*	*119*	*69*	*40*	*71*	*75*
CTN 4						
USSR	240	145	174	513	789	1,861
UK	208	243	372	560	822	2,205
USSR as percent of UK	*115*	*60*	*47*	*92*	*96*	*84*
CTN 5						
USSR	118,994	115,771	133,865	181,545	265,317	815,492
UK	150,796	148,827	152,707	225,124	315,233	992,687
USSR as percent of UK	*79*	*78*	*88*	*81*	*84*	*82*
CTN 6, 7						
USSR	24,991	26,703	54	720	1,364	53,832
UK	28,914	27,715	19,690	415	1,436	78,170
USSR as percent of UK	*86*	*96*	*Negl*	*173*	*95*	*69*
CTN 8						
USSR	6,584	10,151	9,729	11,282	17,618	55,364
UK	7,879	11,577	9,624	10,035	14,815	53,930
USSR as percent of UK	*84*	*88*	*101*	*112*	*119*	*103*
CTN 9						
USSR	9,574	11,323	11,351	13,155	17,648	63,051
UK	7,055	9,368	12,658	17,485	18,686	65,252
USSR as percent of UK	*136*	*121*	*90*	*75*	*94*	*97*
Total CTN 1-9						
USSR	195,304	206,283	216,557	317,215	484,524	1,419,883
UK	523,499	497,197	565,840	807,102	921,312	3,314,950
USSR as percent of UK	*37*	*41*	*38*	*39*	*53*	*43*

Table 37

UK and Soviet Unit Prices for Selected Soviet Exports:
UK Unit Prices as a Percent of Soviet Unit Prices

Thousand US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 19501: passenger cars					
USSR exports	656	664	751	758	1,023
UK imports	792	847	848	873	1,297
Percent	*121*	*128*	*113*	*115*	*127*
CTN 21, 22: petroleum products					
USSR exports	[2]	[2]	16.18	27.97	100.43
UK imports			24.12	35.95	118.58
Percent			*149*	*129*	*118*
CTN 24001: iron ore					
USSR exports	5.58	6.66	6.29	6.10	6.84
UK imports	10.79	12.07	12.12	13.37	15.70
Percent	*193*	*181*	*193*	*219*	*230*
CTN 24002: manganese ore					
USSR exports	16.71	19.15	21.08	13.57	0
UK imports	25.25	28.16	29.62	25.71	0
Percent	*151*	*147*	*141*	*189*	
CTN 26051: pig iron					
USSR exports	0	44.92	37.25	59.64	0
UK imports	0	58.94	57.02	93.42	0
Percent	*131*	*131*	*153*	*157*	
CTN 2700101, 2, 4: refined copper					
USSR exports	0	987	1,065	1,638	2,028
UK imports	0	1,010	1,039	1,799	2,029
Percent	*0*	*102*	*98*	*110*	*100*
CTN 27004: zinc					
USSR exports	0	311	387	657	1,300
UK imports	0	315	376	654	1,635
Percent		*101*	*97*	*100*	*126*
CTN 27008: aluminum					
USSR exports	506	482	420	496	692
UK imports	574	560	526	533	819
Percent	*113*	*116*	*125*	*107*	*118*
CTN 501: lumber					
USSR exports	39.41	42.50	40.54	51.30	129.10
UK imports	53.39	58.55	59.69	74.01	155.99
Percent	*135*	*138*	*147*	*144*	*121*
CTN 50201: glued plywood					
USSR exports	117.72	124.38	135.52	155.25	230.99
UK imports	136.52	144.51	151.75	166.70	243.62
Percent	*116*	*116*	*112*	*107*	*105*
CTN 84109: sunflower seed oil					
USSR exports	291	364	306	462	834
UK imports	291	387	322	376	915
Percent	*100*	*106*	*105*	*81*	*110*
Weighted average of UK unit prices as a percent of Soviet unit prices[3]	*138*	*138*	*140*	*138*	*123*

1. These commodities, as a share of UK aggregate imports from the USSR, grew from one-fourth in 1970 to nearly two-fifths in 1974.
2. The USSR reported only exports of petroleum products (CTN 22) to the UK in 1970-71, although UK statistics show that some CTN 21 imports were received. Consequently, for consistency's sake, unit value prices in 1970-71 are excluded.
3. The percentages are weighted by the corresponding values of UK imports.

95. In addition, data on the volume of Soviet exports of several commodities–in particular, petroleum and petroleum products (CTN 21, 22)–have at times been greater than UK import figures, offsetting part of the c.i.f.-f.o.b. disparities. Soviet goods shipped to the UK via a third country apparently are credited to the other country and not the USSR. (The UK assigns imports according to the country of first consignment rather than the country of origin.) A comparison of Soviet and UK data on a 1-digit CTN level shows, for example, that Soviet CTN 2 exports as a percent of UK CTN 2 imports rose sharply in 1974 (Table 36). Oil exports account for the jump; Soviet deliveries were 40 percent greater than UK imports in value terms and over two-thirds greater by volume.[24] A share of the additional oil most likely was shipped from Belgium by Nafta-B to Nafta-GB in the UK. Both are Soviet-controlled petroleum companies. Similarly, Soviet exports of sunflower seed oil (CTN 84109) for 1971-74 were twice UK imports and raised Soviet CTN 8 exports above UK CTN 8 imports after 1971.

96. The remaining 1-digit categories pretty much follow the expected pattern because of the incomplete commodity breakdown in Soviet handbooks–UK imports exceed Soviet exports. For example, imports from the USSR of crude rubber appear in UK trade books but not in the Soviet breakdown. And the USSR stopped reporting exports of potassium salts (CTN 34101) to the UK in 1973 although, according to UK trade data, deliveries continued. These exports presumably are in the unspecified export residual but account for a very small share since UK imports of Soviet diamonds exhaust more than 95 percent of the residual in 1970-74 (Table 38).

Soviet Imports and UK Exports

97. Soviet inclusion of related technology costs in machinery and equipment (CTN 1) imports is partially responsible for total Soviet imports being higher than UK exports (Tables 2 and 39). Imbalances between USSR imports and UK exports

24. Soviet oil exports also exceeded UK imports in 1973 by the same proportions but had less impact because of the smaller quantity shipped to the UK.

Table 38

Analysis of Unidentified Soviet Exports to the UK

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	251,942	208,347	275,476	410,939	396,824	1,543,528
Other precious stones (SITC 6673)	200	52	28	17	0	297
Silver (SITC 6811)	20,282	0	1,240	0	0	21,522
Platinum and platinum group metals (SITC 6812)	4,723	3,854	19,227	12,633	0	40,437
Jewelry of gold, silver, and platinum (SITC 8971)	0	8	0	29	2	39
Nickel (SITC 683)	6,022	31,288	444	296	559	38,609
Imports identified by the UK but not by USSR	283,169	243,549	296,415	423,914	397,385	1,644,432
Unspecified Soviet export residual	269,363	243,384	232,474	412,595	426,936	1,584,752
	Percent					
Value reported by the UK as share of unspecified Soviet export residual	105	100	128	103	93	104

of fuels, minerals, and metals and raw materials of vegetable and animal origin also have contributed in isolated years:

	Million US $				
	1970	1971	1972	1973	1974
Difference between Soviet imports and UK exports of:	10.2	17.5	10.0	9.2	14.3
Machinery and equipment (CTN 1)	3.8	5.8	7.4	14.5	0.7
Fuels, minerals, and metals (CTN 2)	0.2	6.1	-0.4	-3.4	18.6
Raw materials of vegetable and animal origin (CTN 5)	6.2	5.6	3.6	-1.9	-5.0
Total	**10.3**	**17.5**	**10.0**	**9.2**	**14.6**
Difference between total Soviet imports and total UK exports	**14.3**	**16.2**	**10.4**	**5.5**	**6.6**

Table 39

Comparison of Soviet Imports and UK Exports
on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	109,817	95,371	108,560	121,395	75,272	510,415
UK	105,983	89,549	101,177	106,884	74,557	478,150
USSR as percent of UK	*104*	*107*	*107*	*114*	*101*	*107*
CTN 2						
USSR	31,660	27,664	26,271	27,684	54,879	168,158
UK	31,429	21,544	26,707	31,100	36,320	147,100
USSR as percent of UK	*101*	*128*	*98*	*89*	*151*	*114*
CTN 3						
USSR	26,254	27,137	26,054	28,888	41,092	149,425
UK	29,230	27,610	29,056	35,204	55,186	176,286
USSR as percent of UK	*90*	*98*	*90*	*82*	*74*	*85*
CTN 4						
USSR	0	0	0	0	0	0
UK	1,888	1,177	1,299	3,111	2,358	9,833
CTN 5						
USSR	37,469	32,401	35,382	30,706	49,262	185,220
UK	31,204	26,819	31,763	32,594	53,987	176,367
USSR as percent of UK	*120*	*121*	*111*	*94*	*91*	*105*
CTN 6, 7						
USSR	0	3,761	503	0	692	4,956
UK	0	2,902	866	292	867	4,927
USSR as percent of UK		*130*	*58*		*80*	*101*
CTN 8						
USSR	810	63	0	0	0	873
UK	1,244	582	888	845	1,631	5,190
USSR as pc. cent of UK	*65*	*11*				*17*
CTN 9						
USSR	28,929	26,385	16,485	15,769	21,470	109,038
UK	32,634	35,446	23,843	20,160	32,029	144,112
USSR as percent of UK	*89*	*74*	*69*	*78*	*67*	*76*
Total CTN 1-9						
USSR	234,940	212,784	213,254	224,442	242,666	128,086
UK	233,612	205,629	215,599	230,190	256,935	1,141,965
USSR as percent of UK	*101*	*103*	*99*	*98*	*94*	*99*

98. Soviet imports of refined copper, tin, and lead account for most of the CTN 2 difference. Imports of these commodities by the USSR are nearly 2-1/2 times as large as UK export figures over the 5-year period. In CTN 5, Soviet imports of artificial textile fibers are larger than UK exports. Most likely, these goods are shipped to a third country and then on to the USSR, with an intervening commercial transaction. Consequently, the third country would be identified as the importing country by the UK, while the Soviets would credit the UK with the exports. As for the other 1-digit categories, the incomplete Soviet commodity breakdown explains the excess of UK exports over Soviet imports (Table 39).[25]

West Germany

Soviet Exports and West German Imports

99. Discrepancies between West German imports and Soviet exports on both aggregate and 1-digit CTN levels are inevitable, given that West Germany values its imports c.i.f., and the USSR values its exports f.o.b. (Tables 1 and 40). Reexports play a minor role. The importance of c.i.f.-f.o.b. differences in explaining the size of the discrepancies varies, however, and is affected especially by large price changes.

100. A jump in Soviet export prices beginning in 1973 and continuing through 1974 helped offset c.i.f.-f.o.b. valuation differences and reduced the percentage gap between FRG imports and USSR exports; discrepancies in 1960-71 had fluctuated within a narrow range. (The decline in the relative importance of transport and insurance costs accounts for some of the reduction.) A weighted average of unit prices for selected West German imports in 1970-74 as a percent of Soviet export unit prices shows the impact of price changes in recent years (Table 41). The ratio of average German import prices to the Soviet export prices for nine important commodities dropped from 129 percent in 1971 and 1972 to 102 percent in 1973 and to 99 percent in 1974. For products whose (Soviet) selling price increased gradually over the period (chrome ore and asbestos), the ratio of export prices to import prices did not change much. But when Soviet export prices jumped precipitously (coal, petroleum and petroleum products, iron ore, and apatite), the increase in import prices lagged behind. West German

25. A share of UK exports of building materials and construction parts (CTN 4) possibly is included in Soviet trade books under CTN 1 imports if the materials were used in the construction of an industrial plant purchased in the West.

Table 40

Comparison of Soviet Exports and West German Imports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	28,784	15,465	20,507	17,639	19,552	101,947
West Germany	25,744	18,126	32,185	48,753	24,203	149,011
USSR as percent of West Germany	*112*	*85*	*64*	*36*	*81*	*68*
CTN 2						
USSR	123,888	145,613	159,572	405,143	787,663	1,621,879
West Germany	205,219	218,791	254,309	465,173	880,837	2,024,329
USSR as percent of West Germany	*60*	*67*	*63*	*87*	*89*	*80*
CTN 3						
USSR	9,029	8,980	10,788	15,562	40,728	85,087
West Germany	11,158	9,131	8,942	16,407	46,744	92,382
USSR as percent of West Germany	*81*	*98*	*121*	*95*	*87*	*92*
CTN 4						
USSR	721	1,259	206	365	314	2,865
West Germany	47	274	331	926	1,028	2,606
USSR as percent of West Germany	*1,534*	*459*	*62*	*39*	*31*	*110*
CTN 5						
USSR	40,140	45,753	51,111	79,073	99,549	315,626
West Germany	60,916	65,926	71,415	116,585	130,968	445,810
USSR as percent of West Germany	*66*	*69*	*72*	*68*	*76*	*71*
CTN 6, 7						
USSR	923	3,648	241	0	0	4,812
West Germany	7,873	8,791	5,933	3,868	924	27,389
USSR as percent of West Germany	*12*	*41*	*4*			*18*
CTN 8						
USSR	26,272	40,904	35,733	46,777	101,302	250,988
West Germany	24,569	37,075	38,148	43,355	83,728	226,875
USSR as percent of West Germany	*107*	*110*	*94*	*108*	*121*	*111*
CTN 9						
USSR	6,118	7,367	9,794	13,947	18,623	55,849
West Germany	3,877	6,716	7,424	9,497	12,844	40,358
USSR as percent of West Germany	*158*	*110*	*132*	*147*	*145*	*138*
Total CTN 1-9						
USSR	235,877	268,989	287,951	578,506	1,067,731	2,439,054
West Germany	339,403	364,830	418,687	704,564	1,181,276	3,008,760
USSR as percent of West Germany	*69*	*74*	*69*	*82*	*90*	*81*

withdrawals of Soviet goods–particularly petroleum products–from bonded storage for domestic consumption helped to narrow the gap. These goods presumably are valued at older, lower prices in a calculation of unit prices of West German imports.[26] The rule does not always hold, however. When the average price for cellulose sulfate recorded by the USSR more than doubled in 1974, the average import price reported by West Germany increased nearly as much.

101. FRG imports in 1970-74 on a 1-digit level–such as aggregate imports–are consistently larger than Soviet exports in all categories except foodstuffs (CTN 8) and consumer goods (CTN 9) (Table 40). The effect of the c.i.f.-f.o.b. confrontation is compounded by the incomplete commodity breakdown published by the USSR. Most of the "unspecified" export residual is accounted for by the commodities traditionally omitted from Soviet trade books (Table 42).

102. In a departure from the past, West German import data for 1973 and 1974 are not exhaustive for minerals, fuels, lubricants, and related materials (SITC 3) on even a 2-digit level; trade data on a 2-digit level for SITC 3 do not sum to the appropriate 1-digit totals. The discrepancies for these 2 years–$7 million and $41 million, respectively–equal the value of Soviet gas fuel exports to the FRG that are unreported by West Germany under SITC 34.

103. West German reexports of Soviet goods lead to Soviet exports being greater than FRG imports of foodstuffs (CTN 8) and consumer goods (CTN 9), despite the valuation differences. The discrepancies in CTN 8 arise largely because of the reexport of sunflower seed oil while reexports of cotton fabrics are important in CTN 7. The USSR presumably did not know the country of consumption for these exports and reported them as shipments to the FRG. West Germany, which uses a special trade system, omits reexports from its trade statistics.

Soviet Imports and West German Exports

104. The USSR's assignment of a share of deliveries of machinery and equipment (CTN 1) from West Germany to other countries probably accounts for Soviet imports being less than FRG exports in many years (Tables 2 and 43).

26. West German imports of Soviet oil in 1970-73 were consistently less than Soviet exports by weight. In 1974, however, West German imports exceeded reported Soviet deliveries. During the energy crisis, some of the oil normally reexported was apparently taken out of bonded tanks for domestic use.

Table 41

West German and Soviet Unit Prices for Selected Soviet Exports: West German Unit Prices as a Percent of Soviet Unit Prices

Thousand US $

Commodity[1]	1970	1971	1972	1973	1974
CTN 19501: passenger cars					
USSR exports	635	700	822	1,239	1,243
West German imports	576	744	775	1,202	1,506
Percent	*91*	*106*	*94*	*97*	*112*
CTN 20001: coal					
USSR exports	7.78	7.71	9.28	10.33	24.88
West German imports	12.13	12.08	12.74	15.87	24.37
Percent	*156*	*157*	*137*	*154*	*98*
CTN 21, 22: petroleum products					
USSR exports	14.24	17.16	17.48	50.84	95.76
West German imports	17.04	22.15	22.35	49.53	92.15
Percent	*120*	*129*	*128*	*97*	*96*
CTN 24001: iron ore					
USSR exports	4.90	6.87	6.76	8.02	8.78
West German imports	10.34	11.66	12.23	12.89	13.70
Percent	*211*	*170*	*181*	*161*	*156*
CTN 24004: chrome ore					
USSR exports	41.52	55.71	46.85	37.91	54.19
West German imports	46.70	59.42	45.14	43.77	54.69
Percent	*112*	*107*	*96*	*115*	*106*
CTN 25001: asbestos brands					
USSR exports	110.57	116.95	117.88	135.27	146.88
West German imports	120.02	127.61	129.10	150.97	167.34
Percent	*109*	*109*	*110*	*112*	*114*
CTN 25013: apatite concentrate					
USSR exports	13.47	13.50	14.03	16.86	68.13
West German imports	17.63	19.35	19.09	24.03	73.58
Percent	*131*	*143*	*136*	*143*	*108*
CTN 26001: pig iron					
USSR exports	59.71	46.21	35.29	58.74	68.74
West German imports	66.01	54.27	42.85	63.90	75.24
Percent	*111*	*117*	*121*	*109*	*109*
CTN 50503: cellulose sulfate					
USSR exports	108.87	128.96	128.75	157.05	376.23
West German imports	114.23	127.98	128.82	165.56	382.52
Percent	*105*	*99*	*100*	*105*	*102*
Weighted average of West German unit prices as a percent of Soviet unit prices[2]	***123***	***129***	***129***	***102***	***99***

1. These commodities account for one-third of West German imports from the USSR in 1970 to more than one-half in 1974.
2. The percentages are weighted by the corresponding values of West German imports.

Table 42

Analysis of Unidentified Soviet Exports to West Germany

	1970	1971	1972	1973	1974	Total
	Thousand US $					
Diamonds (SITC 6672)	61	0	689	4,328	2,577	7,655
Other precious stones (SITC 6673)	109	168	149	230	338	994
Silver (SITC 6811)	263	0	3,298	764	0	4,325
Platinum and platinum group metals (SITC 6812)	12,109	11,403	20,391	24,178	38,949	107,030
Silver and platinum ore (SITC 285)	0	0	0	712	0	712
Jewelry of gold, silver, and platinum (SITC 8971)	13	306	333	161	1,204	2,017
Nickel (SITC 683)	33,449	12,805	9,635	16,248	25,174	97,311
Isotopes and amorphous chemicals (SITC 515)	186	272	512	404	19,215	20,589
Imports identified by West Germany but not by USSR	**46,190**	**24,954**	**35,007**	**47,025**	**87,457**	**240,633**
Unspecified Soviet export residual	**21,012**	**22,900**	**34,151**	**72,194**	**94,661**	**244,918**
	Percent					
Value reported by West Germany as percent of unspecified Soviet export residual	**220**	**109**	**103**	**65**	**92**	**98**

Valuation differences should not be a problem because West Germany values its exports f.o.b. at its border and the USSR prices its imports at the frontier from which the goods are shipped. The USSR apparently did not consider West Germany as the country of origin for these exports. The FRG, meanwhile, viewed the commodities as either nationalized or domestically produced goods exported to the USSR.

Table 43

Comparison of Soviet Imports and West German Exports on a 1-Digit CTN Level

Thousand US $

	1970	1971	1972	1973	1974	Total
CTN 1						
USSR	136,808	198,690	376,441	523,729	737,296	1,972,964
West Germany	170,131	176,177	378,788	590,524	802,379	2,117,999
USSR as percent of West Germany	*80*	*113*	*99*	*87*	*92*	*93*
CTN 2						
USSR	156,936	205,644	230,935	345,046	712,043	1,650,604
West Germany	148,290	193,162	220,582	424,921	768,626	1,755,581
USSR as percent of West Germany	*106*	*106*	*105*	*81*	*93*	*94*
CTN 3						
USSR	37,593	40,789	52,322	61,711	144,261	336,676
West Germany	63,396	56,516	62,245	71,141	165,395	418,693
USSR as percent of West Germany	*59*	*72*	*84*	*87*	*87*	*80*
CTN 4						
USSR	0	0	0	0	0	0
West Germany	122	303	1,303	1,041	7,101	9,870
CTN 5						
USSR	7,742	8,134	9,716	7,303	28,143	61,038
West Germany	15,117	13,422	14,323	30,188	38,307	111,357
USSR as percent of West Germany	*51*	*61*	*68*	*24*	*73*	*55*
CTN 6, 7						
USSR	0	0	3,012	8,627	13,828	25,467
West Germany	115	30	5,371	8,712	19,544	33,772
USSR as percent of West Germany			*56*	*99*	*71*	*75*
CTN 8						
USSR	0	0	0	0	0	0
West Germany	483	147	194	24,507	6,039	31,370
CTN 9						
USSR	22,340	13,636	11,515	14,606	21,558	83,655
West Germany	20,405	17,669	16,072	15,475	30,258	99,879
USSR as percent of West Germany	*109*	*77*	*72*	*94*	*71*	*84*
Total CTN 1-9						
USSR	361,416	466,892	683,942	961,022	1,657,130	4,130,402
West Germany	418,059	457,426	698,878	1,166,509	1,837,649	4,578,521
USSR as percent of West Germany	*86*	*102*	*98*	*82*	*90*	*90*

105. Data for 1970-74 illustrate the inconsistency. Soviet CTN 1 imports from West Germany were greater than FRG exports only in 1971, even though the USSR includes technology costs related to machinery imports in this category while the FRG excludes them (Table 43). Indeed, 1971 is the only year in which Soviet imports outweighed FRG exports on an aggregate level. The lack of an exact concordance for machinery and equipment, together with the incomplete Soviet commodity breakdown under CTN 1, prevents the identification of the machinery that the West Germans count in their exports and the USSR does not.

106. As expected, West German exports in CTN 2-9 as a whole were greater than Soviet imports in 1970-74; the USSR's commodity breakdown is not exhaustive. The Soviets also completely omit imports of building materials and construction parts (CTN 4) and foodstuffs (CTN 8). Clay refactory construction materials (SITC 662) and finished structural parts and structures (SITC 691) accounted for the bulk of West German CTN 4 exports while fixed vegetable oils and fats (SITC 42) were a large share of the FRG's CTN 8 exports.

107. Soviet CTN 2 imports were slightly greater than West German exports in 1970-72, with imports of pipe and petroleum products accounting for much of the discrepancies. The difference probably represents goods either reexported by West Germany to the USSR or purchased from the FRG by Soviet foreign trade enterprises and shipped to a third country with West Germany reporting them as exports to the third country. West German exports of petroleum products were also lower than Soviet imports in 1973-74 while pipe exports were lower only in 1974. FRG deliveries of iron and steel bars, rods, and angles (SITC 673)–which the USSR does not report in its commodity breakdown–moved upward in 1971-72 and soared in 1973-74. As a result, West German CTN 2 exports climbed above Soviet imports in these years (Table 44). Most likely, they accounted for a sizable share of the sudden increase in unspecified Soviet imports from West Germany in 1973-74 (from $26 million in 1972 to $70 million in 1973 and $179 million in 1974).

Table 44

USSR and West Germany: Comparison of CTN 2 Trade Data

Thousand US $

	1970	1971	1972	1973	1974
Difference between Soviet imports and West German exports of:					
Pipe (CTN 26601, 26604, 26605, 26606, 26607)	8,222	16,453	11,745	-61,063	41,155
Petroleum products (CTN 22)	4,365	4,616	5,005	5,686	11,723
Iron and steel bars, rods, and angles (SITC 673)	-170	-3,762	-4,418	-20,490	-130,712
Total	**12,417**	**17,307**	**12,332**	**-75,867**	**-77,834**
Difference between Soviet imports and West German exports in CTN 2	**8,646**	**12,482**	**10,353**	**-79,875**	**-56,583**

Conclusions

Soviet Exports and Western Imports

108. The examination of Western and Soviet trade statistics on a bilateral and commodity basis uncovered a good many special circumstances. Nonetheless, a few primary factors explain most of the discrepancies between Western and Soviet reporting. First and foremost, Western c.i.f. reporting accounts for most of the difference between Western imports and Soviet exports. This is the case for France, Italy, Japan, the United Kingdom, and West Germany—five of the seven countries that include transport and insurance costs in the value of imports. To some extent, these additional costs are offset in those Western countries that use the special trade

reporting system and therefore do not count as imports the Soviet goods that they buy and then reexport. Moreover, the sharp increase in export prices for Soviet raw materials in 1973–particularly prices of petroleum products–reduced the relative importance of transport and insurance costs.

109. For the Netherlands and Belgium-Luxembourg, reexports are particularly important, so imports of these two countries from the USSR usually fall short of the value of corresponding Soviet exports. A substantial share of Soviet goods delivered to these two countries–mainly diamonds and petroleum products–are reexported and therefore missing from imports as recorded in their special trade statistics. Since the United States and Canada report imports f.a.s. and f.o.b., respectively, the discrepancies between their imports and Soviet exports originate in the methods used to identify trading partners. US imports exceed Soviet exports because the USSR fails to identify the US as the country of final destination for all Soviet goods that arrive in the US. These goods, mainly raw materials, are shipped first to Western Europe and then reexported (or transshipped) to the US. But they often appear in Soviet trade books as exports to Western Europe because the Soviets do not know where the goods are going. The value of Canadian imports, on the other hand, is less than the value of Soviet exports because the method used by Canada to identify the exporting country (the country of last consignment) understates imports from the USSR.

110. The factors at work on a bilateral basis also are evident at the aggregate level. Thus the inclusion of transport and insurance costs in Western import statistics drives a wedge between Western imports and Soviet exports. Abstracting from reexports of Soviet goods by the West, Western imports would be 18 to 19 percent larger than USSR exports in 1970-72 because of the additional costs.[27] But the average difference actually is only 14 percent, putting reexports in the neighborhood of 4 to 5 percent. Beginning in 1973, however, the gap narrowed. The rise in the prices of Soviet raw materials (making transport and insurance costs less important) and a slight increase in reexport of Soviet goods were primarily responsible. The estimated average difference due to transport and insurance costs in 1973-74 dropped to 9 percent–compared with the actual difference of 3 percent. This change reflected the price increase and a rise in reexports to about 6 percent

27. These estimates are based on weighted averages of unit price ratios calculated in the country sections. For the trade not included in the sample, an average ratio of 105 percent is assumed, which may be on the low side.

of Soviet exports. Consequently, Western import data before 1973 grossly overstated Soviet exports, with the upward bias for 1973-74 being considerably less.

Soviet Imports and Western Exports

111. Because of differences in trade coverage and, to a lesser degree, difficulties in identifying trade partners, Soviet imports are larger in value than the corresponding exports for all of the nine countries except West Germany. Soviet inclusion of the cost of technology associated with machinery and equipment (CTN 1) in its imports accounts for Soviet imports being larger than French, Italian, UK, and Japanese exports to the USSR. Soviet imports from the US generally were larger than American exports before 1970 because the US did not know the final destination of all the goods that it exported. More recently, the broader definition of reexports used by the Soviets has added to the bias. US grain bought on Soviet account and shipped directly to a third country appears in Soviet data as imports from the US but in US trade books as exports to the other country. Similarly, some Canadian grain and wheat flour exports, which the Soviets recorded as imports from Canada, presumably were shipped directly to Cuba. Canada, however, credited Cuba with the imports. In addition, the Canadian practice of identifying the country of last consignment as the buyer contributed to the imbalance in 1960-74.

112. Reexports (or transshipments)–mainly of chemicals–produced the discrepancy between Dutch and Belgian-Luxembourg exports and Soviet imports. West German exports, in contrast, generally have exceeded Soviet imports. A share of machinery and equipment (CTN 1) delivered to the USSR and recorded by the FRG as exports to the USSR was attributed to another country by the Soviets.

113. Soviet imports in the aggregate are greater than Western exports for the reasons adduced above–the Soviet inclusion of technology imports and the broader definition of reexports employed by the Soviets. Western trade data tend to understate exports to the USSR–at least as the Soviets perceive them–because they do not count all reexports to the USSR. In 1970-74, Soviet imports on the average were 7 percent larger than Western exports. Of this difference, USSR technology imports accounted for roughly 2 percentage points.[28] Another 2 to 3 percentage

28. This estimate, which is based on the findings of the country sections, may be on the high side. It was assumed that the difference between Soviet machinery imports (CTN 1) and Western CTN 1 exports is the cost of imported technology. Some of the difference, however, may be accounted for by imports of nonmachinery items, since the Soviets report the entire cost of plants purchased abroad in the machinery and equipment category. The West, on the other hand, assigns the various plant components to the appropriate trade categories.

points can be traced to the Soviet practice of including in their imports goods that are bought on Soviet account and delivered directly to a third country. Reexports (or transshipments) that are not reflected in Western export statistics but which are delivered to the USSR make up another 2 to 3 percent of the margin.[29]

Which Statistics To Use?

114. Soviet data are a far better indicator of USSR hard-currency trade balances than Western data. Discounting for Soviet technology imports—while placing these costs in the service account—puts the USSR trade deficit with the nine countries at $2.5 billion for 1970-74. Western data, on the other hand, show a Soviet deficit of only $0.6 billion. It is unnecessary to adjust Soviet data for Western goods that are included in USSR trade statistics owing to the Soviets' broader definition of reexports. These goods are bought on Soviet account and therefore represent a hard-currency cost to the USSR. Soviet exports, in turn, need not be adjusted if the reexports are sold for hard currency abroad.

115. To obtain a trade balance for the USSR consistent with the Western definition of merchandise trade, however, requires adjusting Soviet imports for both technology imports and reexports. This reduces the Soviet trade deficit to $2 billion, which is still substantially different from the Soviet balance obtained from Western data.

Estimates of Soviet Trade Based on Western Statistics

116. Western trade data, despite their shortcomings, can be used to estimate Soviet trade on bilateral and aggregate levels.[30] The predictions of linear regressions developed for this study (see Appendix C) proved to be within 5 percent of the actual values reported by the Soviets for their exports to and imports from the nine Western countries as a group.

117. As for trade with individual countries, estimates of USSR exports obtained from West German, French, Japanese, and UK import data are in the neighborhood of the actual values. The predictive power of the regression equations

29. These estimates are based on the discrepancies between Soviet and Western data computed on a bilateral level (see the country sections of this paper).

30. The need for a method of estimating Soviet trade data has lessened, however. In 1976 the USSR began reporting quarterly trade statistics, although there is no assurance that this will continue.

for the remaining countries, however, is questionable—at least in 1974 and 1975. Increased reexporting of Soviet goods by Western countries reporting only special trade and the sharp rise in Soviet export prices largely account for the discrepancies. As for Soviet imports, only the regression equations for the Netherlands and Canada give poor predictions—the Netherlands because of its role as a reexporter and Canada because of the broader definition of reexports used by the USSR.

* * * *

Comments and queries on this paper are welcome and may be directed to the Special Assistant to the Director, Central Intelligence Agency, Washington, D.C. 20505; area code 703, 351-7676; or interdepartmental code 143, extension 7676. Mr. Damian T. Gullo is the author. For information on obtaining additional copies, see the inside of the front cover.

APPENDIX A

ALLOCATION OF SITC CATEGORIES TO 1-DIGIT CTN CATEGORIES

The following concordance links all Standard International Trade Classification (SITC) categories with the appropriate 1-digit categories of the Common Foreign Trade Nomenclature (CTN) employed by the USSR and CEMA. The highest SITC levels were used to ensure more complete coverage; subcategories do not always sum to the value of the corresponding higher categories, particularly at 4- and 5-digit SITC levels. Finally, CTN 6 and 7 were combined since the SITC classification makes little distinction between live animals not for slaughter (CTN 6) and live animals for slaughter (which are included in CTN 7).

CTN 1 Machinery, Equipment, and Transport Facilities

SITC Categories

2751	Industrial diamonds
6631	Grinding and polishing wheels and stones
6632	Abrasive cloths and papers and similar articles
6637	Refractory products other than refractory construction materials
6639	Articles of ceramic materials, n.e.s. (not elsewhere specified)
695	Tools for use in the hand or in machines
71	Machinery other than electric
722	Electric power machinery and switchgear
723	Equipment for distributing electricity
7249	Telecommunications equipment, n.e.s.
726	Electric apparatus for medical purposes and radiological apparatus
729	Other electrical machinery and apparatus
731	Railway vehicles
732	Road motor vehicles
7333	Trailers and other vehicles, not motorized, and their parts
734	Aircraft
735	Ships and boats
8124	Lighting fixtures and fittings, lamps and lanterns and parts thereof (not including electrical parts)
8611	Optical elements
8613	Binoculars, microscopes, and other optical instruments

8617 Medical instruments, n.e.s.

8618 Meters and counters, nonelectric

8619 Measuring, controlling, and scientific instruments, n.e.s.

86412 Clocks with watch movements

86413 Watch movements, assembled

86414 Watch cases and parts thereof

8642 Clocks, clock movements and parts

9310 Special transactions not classified according to kind

9510 Firearms of war and ammunition therefor

CTN 2 Fuels, Mineral Raw Materials, and Metals

SITC Categories

241 Fuel, wood, and charcoal

2713 Natural phosphates, n.e.s., whether or not ground

2732 Gypsum, plasters, limestone flux, and calcareous stone used for the manufacture of lime or cement

2733 Sand (excluding metal-bearing sand)

2734 Gravel and crushed stone (including tarred macadam)

274 Sulfur and unroasted iron pyrites

2752 Natural abrasives

276 Other crude minerals

28 Metalliferous ores and metal scrap

32 Coal, coke, and briquettes

33 Petroleum and petroleum products

34	Gas, natural and manufactured
35	Electric energy
5132	Chemical elements, n.e.s.
51365	Aluminum oxide and hydroxide
5997	Organic chemical products, n.e.s.
667	Pearls and precious and semiprecious stones, unworked or worked
67	Iron and steel
68	Nonferrous metals
692	Metal containers for storage and transport
693	Wire products (excluding electric) and fencing grills
694	Nails, screws, nuts, bolts, rivets, and similar articles of iron, steel, or copper
6983	Chain and parts thereof of iron and steel
6984	Anchors, grapnels, and parts thereof of iron or steel
6986	Springs and leaves for springs of iron, steel, or copper
6988	Miscellaneous articles of base metal
6989	Articles of base metals, n.e.s.
89712	Goldsmiths' or silversmiths' wares of precious metal
89713	Laboratory and industrial articles of precious metal, etc.

CTN 3 Chemicals, Fertilizers, and Rubber

SITC Categories

23	Crude rubber (including synthetic and reclaimed)
2711	Natural fertilizers of animal or vegetable origin, not chemically treated

2712	Natural sodium nitrate
2714	Natural potassic salts, crude
512	Organic chemicals
5131	Oxygen, nitrogen, hydrogen, rare gases
5133	Inorganic acids and oxygen compounds of nonmetals or metalloids
5134	Halogen and sulfur compounds of nonmetals or of metalloids
5135	Metallic oxides, of kinds principally used in paints
51361	Ammonia, anhydrous or in aqueous solution
51362	Caustic soda (sodium hydroxide)
51363	Caustic potash; peroxides of potassium or sodium
51364	Oxides, hydroxides and peroxides of strontium, barium, or magnesium
51366	Artificial corundum
51367	Chromium oxides and hydroxides
51368	Tin oxides
51369	Other inorganic bases and metallic oxides, hydroxides and peroxides
514	Other inorganic chemicals
515	Radioactive and associated materials
52	Mineral tar and crude chemicals from coal, petroleum, and natural gas
53	Dyeing, tanning, and coloring materials
5542	Surface-acting agents and washing preparations
56	Fertilizers, manufactured
57	Explosives and pyrotechnics products
58	Plastic materials, regenerated cellulose, and artificial resins

5992 Insecticides, fungicides, disinfectants (including sheep and cattle dressing), and similar preparations

5996 Wood and resin-based chemical products

5999 Chemical products and preparations, n.e.s.

62 Rubber manufactures, n.e.s.

862 Photographic and cinematographic supplies

CTN 4 Building Materials and Construction Parts

SITC Categories

2731 Building and monumental (dimension) stone, not further worked than roughly split, squared, or squared by sawing

6314 "Improved" or reconstituted wood

6324 Builders' woodwork and prefabricated buildings of wood

6574 Linoleum and similar floor coverings

661 Lime, cement, and fabricated building materials, except glass and clay materials

662 Clay construction materials and refractory construction materials

6634 Worked mica (including agglomerated mica splittings) and articles thereof

6635 Mineral insulating materials, n.e.s.

6636 Manufactures of mineral materials, n.e.s., other than ceramic

6638 Manufactures of asbestos; friction materials

664 Glass

691 Finished structural parts and structures, n.e.s.

8121 Central heating apparatus (central heating boilers (excluding steam-generating boilers), radiators, etc.) and parts thereof

8122 Sinks, wash basins, bidets, baths, and other sanitary and plumbing fixtures and fittings of ceramic materials

8123 Sinks, wash basins, bidets, baths, and other sanitary and plumbing fixtures and fittings of iron or steel (whether or not enameled)

CTN 5 Raw Materials of Vegetable and Animal Origin

SITC Categories

08 Feeding-stuff for animals (not including unmilled cereals)

21 Hides, skins, and fur skins, undressed

22 Oil seeds, oil nuts, and oil kernels

242 Wood in the rough or roughly squared

243 Wood, shaped or simply worked

244 Cork, raw and waste

25 Pulp and waste paper

26 Textile fibers (not manufactured into yarn, thread or fabrics) and their waste

29 Crude animal and vegetable materials, n.e.s.

43 Animal and vegetable oils and fats, processed, and waxes of animal or vegetable origin

551 Essential oils, perfume, and flavor materials

5995 Starches, insulin, gluten; albumin n.e.s., substances; glues

61 Leather, leather manufactures, n.e.s., and dressed fur skins

6311 Veneer sheets

6312 Plywood (including veneered panels)

6318 Wood simply shaped or worked, n.e.s.

6321 Boxes, cases, crates, complete, whether or not assembled

6322 Cooperage products (excluding staves falling within heading 63.8 (2))

6328 Manufactured articles of wood, n.e.s.

633 Cork manufactures

641 Paper and paperboard

6421 Paper bags, paperboard boxes, and other containers of paper or paperboard

6429 Articles of paper pulp, paper or paperboard, n.e.s. (including paper and paperboard cut to size)

6512 Yarn of wool and animal hair

6513 Cotton yarn and thread, grey (unbleached), not mercerized nor put up for retail sale

6515 Yarn and thread of flax, ramie, and true hemp

6516 Yarn and thread of synthetic fibers

6517 Yarn and thread of regenerated (artificial) fibers

6518 Yarn of glass fiber

6519 Yarn of textile fibers, n.e.s. (including paper yarn)

655 Special textile fabrics and related products

6561 Bags and sacks of textile, awnings, sails, other made-up canvas goods

6562 Tarpaulins, tents, awnings, sails, other make-up canvas goods

CTN 6 Live Animals Not for Slaughter

CTN 7 Raw Materials for the Production of Foodstuffs

SITC Categories

001 Live animals

041 Wheat (including spelt) and meslin, unmilled

042 Rice

043 Barley, unmilled

044 Maize (corn), unmilled

045 Cereals, unmilled, other than wheat, rice, barley, and maize

0611 Raw sugar, beet and cane (not including syrups)

0721 Cocoa beans, raw or roasted

0723 Cocoa butter and cocoa paste

075 Spices

091 Margarine and shortening

0615 Molasses

0619 Sugars and syrups, n.e.s. (including artificial honey and caramel)

121 Tobacco, unmanufactured

4111 Oils of fish and marine mammals

9410 Animals, n.e.s. (including zoo animals, dogs, and cats)

CTN 8 Foodstuffs

SITC Categories

01 Meat and meat preparations

02 Dairy products and eggs

03 Fish and fish preparations

046 Meal and flour of wheat or of meslin

047 Meal and flours of cereals, except meal and flour of wheat or of meslin

048 Cereal preparations and preparations of flour and starch of fruits and vegetables

05 Fruit and vegetables

0612 Refined sugar and other products of refining beet and cane sugar (not including syrups)

0616 Natural honey

062 Sugar confectionery and other sugar preparations (except chocolate confectionery)

071 Coffee

0722 Cocoa powder, unsweetened

073 Chocolate and other food preparations containing cocoa or chocolate, n.e.s.

074 Tea and mate

099 Food preparations, n.e.s.

11 Beverages

122 Tobacco manufactures

4113 Animal oils, fats, and greases (excluding lard)

42 Fixed vegetable oils and fats

CTN 9 Industrial Consumer Goods

SITC Categories

54 Medicinal and pharmaceutical products

553 Perfumery and cosmetics, dentifrices, and other toilet preparations (except papers)

5541 Soaps

5543 Polishes, pastes, powder, and similar preparations for polishing and preserving leather, wood, metal, glass, and other materials

6327	Manufactures of wood for domestic or decorative use (excluding furniture)
6422	Envelopes, writing blocks, letter pads, and similar paper stationery of the kind used in correspondence, n.e.s.
6423	Exercise books, registers, albums, diaries, memorandum blocks, and other stationery of paper or paperboard
6511	Thrown silk and other silk yarn and thread (including schappe and bouretle)
6514	Cotton yarn and thread, bleached, dyed, mercerized, etc.
652	Cotton fabrics, woven (not including narrow or special fabrics)
653	Textile fabrics, woven (not including narrow or special fabrics), other than cotton fabrics
654	Tulle, lace, embroidery, ribbons, trimmings, and other small wares
6566	Blankets and traveling rugs
6569	Made-up articles of textile materials, n.e.s.
6575	Carpets, carpeting and rugs, knotted
6576	Other carpets, carpeting, and rugs
6577	Tapestries
6578	Mats, matting, screens, envelopes for bottles, etc. of vegetable plaiting materials
665	Glassware
666	Pottery
696	Cutlery
697	Household equipment of base metals
6981	Locksmiths' wares

6982	Safes, strong rooms, strong room fittings, and strong boxes of base metal
6985	Pins and needles of iron or steel and base metal fittings of a kind commonly used for articles of apparel, travel goods, etc.
7241	Television broadcast receivers, whether or not combined with gramophone or radio
7242	Radio broadcast receivers, whether or not combined with gramophone
725	Domestic electrical equipment
7331	Bicycles and other cycles, not motorized, and their parts
7334	Invalid carriages, fitted with means of mechanical propulsion
82	Furniture
83	Travel goods, handbags, and similar articles
84	Clothing
85	Footwear
8612	Spectacles and spectacle frames
8614	Photographic cameras (other than cinematographic) and flashlight apparatus
8615	Cinematographic cameras, projectors, sound recorders, and sound reproducers
8616	Photographic and cinematographic apparatus and equipment, n.e.s.
863	Developed cinematographic film
86411	Pocket watches, wrist watches, and other watches
891	Musical instruments, sound recorders, and reproducers and parts and accessories thereof
892	Printed matter
893	Articles of artificial plastic materials, n.e.s.

894	Perambulators, toys, games, and sporting goods
895	Office and stationery supplies, n.e.s.
896	Works of art, collectors' pieces, and antiques
89711	Jewelery of precious metal
89714	Articles incorporating pearls or precious or semiprecious stones
8972	Imitation jewelery (jewelery not of precious or semiprecious material)
899	Manufactured articles, n.e.s.
9610	Coin (other than gold coin), not being legal tender
9110	Postal packages not classified according to kind

APPENDIX B

Linkage of SITC Categories with CTN Categories

The following concordance matches SITC categories with corresponding CTN categories reported in the breakdown of USSR trade with the nine Western countries and contained in Soviet foreign trade handbooks. (This conversion key, therefore, does not cover all CTN categories.) Owing to the differences in the construction of the SITC and CTN classification schemes, one SITC category may be linked to more than one CTN category. Consequently, an exact concordance for all CTN codes is impossible. Care was taken, however, to minimize the allocation of SITC categories to more than one 1-digit CTN category. Categories under fuels, mineral raw materials, and metals (CTN 2) and raw materials for the production of foodstuffs (CTN 7) are less affected by the matching problem than those of machinery and equipment (CTN 1) and chemicals, rubbers, and fertilizers (CTN 3).

CTN 1 Machinery, Equipment, and Transport Facilities

CTN	SITC
100	7151
101-103	7151, 7198
10119	7151
10325	7151
10327	7151
104	7151
10401	7151
10507	No SITC equivalence
10510	
10514	
1051701	
110	7111, 7112, 7113, 7115, 7116, 7118
11024	86193
111	7117, 722, 7291, 72991, 72992, 72995, 72998
11102	7221
11120	72992
11123	72992
11129	7221
11198	7221
11202	72996
11203	72996
11301	7231
11308	7231
11324	7231
120	71842
121	71851
123	71521, 71522, 71913
12301	71521, 71913, 71914, 72992
12303	71522
12304	7151
12305	71521
1230509	71521
127	7198
128	71842, 86191
12844	86191
13	7193
130	71931
13006	71931
13007	71931
13012	71931
13013	71931
13015	71931
13021	71931
133	71931
13302	71931
13309	71931
1330905	71931
140	71831, 71839
142	71912, 71915
143	7198
144	7171
145	7173, 89957
146	7172
150	71911, 71923, 7198
151	7181, 71952, 71961
152	7181, 71952, 71961
153	71911, 71923, 7198
15311	7198
154	71841, 71842, 7324
15401	71842
15408	71842
15498	71841
1549909	71842
155	71921, 71922
15501	71921
15598	71921, 71922
15602	71962, 71965
157	71822, 71829
15826	7293
15903	71852
15904	71852
15908	71852
15909	71852
15911	7198
15914	7198
15920	7198

CTN	SITC
15930	7141
15982	7142
1593205	7142
15940	7142
15941	7142
15948	7141
15950	71992
15970	8615
15970	8615
1599870	8615, 86169
162032	7160
170, 171 178, 179	72951, 72952, 86134, 86181, 86195, 86196, 86197
172	66391, 7261, 7262, 7324, 86171, 86172
17301	7197
174	71953, 7296
17501	2751
177	51366, 66311, 6632
18002	7125
18091	71299
181	7121, 7122, 71239, 71299
18166	71299
19101	7323
19111	73289
1911753	7324
192	7353, 73591, 73592, 73593, 86191
193	7114, 7341, 73491, 73492
19501	7321
19501	7321
19503	7321
19505	73289
19510	7321
1959801	73289
19999	7333

CTN 2 Fuels, Mineral Raw Materials, and Metals

CTN	SITC
20001, 20002	3214
21	331
22	2761, 3321, 3322, 3323, 3324, 3325, 3326, 33291, 33294, 33295, 33296, 59975
23001	341
23002	341
24001	2813
24002	2837
24003	2837
24004	28391
24216	51365
24901	27420, 2814
25001	2764
25005	27654
25006	2741
25013	2713
25201	28393
26001	6711, 6712
261	6714, 6715
26102	6715
26103	6715
26115	51324
26201	2820
264	6725, 6729, 6731, 6732, 6734, 67353, 6741, 6742, 6743, 6748, 675, 6793, 6761, 7317
26403	6725
26407	6734
26408	67321
26411	67411
26416	7317
26423	67431
26432	67433
26504	6747
26508	6750

CTN	SITC
266	678
26601	6782
26604	6783
26605	6782
26606	6784
26607	6782
268	677, 69311, 69331, 6932, 69411, 69421, 6983, 6984, 69861, 69882, 69861, 69887, 69891
26813	69311
2700101	68211, 68212
2700102	
2700104	
27002	68213
27004	6861
27005	6851
27006	6871
27008	6841
27010	6895
27012	68931
27013	6895
27101	2840
2710207	68224
27201	68221, 68226
2720507	68423
27211	68321
27301	69312, 69313, 69332, 69333, 69342, 69343
2730103	69342

CTN 3 Chemicals, Fertilizers, and Rubber

CTN	SITC
30	2412, 51212, 51214, 51220, 51221, 51222, 51224, 51227, 51228, 51231, 5124, 5125, 51261, 5127, 5128, 5131, 51321, 51323, 5133, 5134, 5135, 51352, 51353, 51354, 51356, 5136, 5141, 5142, 5143, 51491, 51492, 51494, 51495, 51496, 51499, 5153, 5542, 58132, 58199, 59953, 59959, 5996, 59973, 59976, 59992, 59999

CTN	SITC
300	51321, 51331, 51333, 51334 51335, 51336, 51337, 51339
30009	51337
30018	51251
30101	51362
30102	51428
30105	51363
30106	51429
302	5125, 51364, 51369, 5141, 5142, 5143, 51496, 5153
30212	51429
30213	51412
30214	51425
30228	51435
30229	51435
30258	51435
303	33292, 33293, 5211, 5214
30302	5214
30303	5214
30310	51212
30315	51285
30316	33292
304	51274, 51287, 5812, 58132, 59959
30401	58132
30409	51285
30412	51274
30413	58132
30414	5812
3041407	51252
30421	5812
3042102	5812
3042107	5812
3042106	5812
30425	51227
30436	59959
30439	5812
30444	5812
30502	51221
30503	51222
30512	51223
306	5996
30601	59965
30604	59963
30606	59964
30613	51285

CTN	SITC
307	51213, 51214, 51227, 51228, 51271, 51272, 51276, 51277, 51281, 51286, 51499
30702	51271
30724	51271
30747	51231
30763	51271
30801	51364
30805	51367
30826	51364
30828	51367
30903	59999
30919	51275
30932	59999
30942	59992
30945	51324
30971	51281
30974	5542
30978	59999
30980	59976
31	29194, 2921, 51327, 51355, 531, 532, 533
31001	53101
311	51213, 51327, 51351, 51355, 5321, 5331, 5332, 53331, 53332, 53333, 53335
31101	53332
31107	51213
31109	53332
3110711	51213
3110713	51213
31109	53332
31112	51355, 51351
341	2714, 5613
34101	2714, 5613
348	5992, 51493
34819	5992
35002	2312
3511001	6291
35201	6294
3599909	62998

CTN 4 Building Materials and Construction Parts

CTN	SITC
40001	27699. 6612
40101	6643
405	63302, 65742, 66181, 66182, 6634, 6635, 6649
41202	63142
41203	63142
404	27623, 6623, 6637
40525	5812

CTN 5 Raw Materials of Vegetable and Animal Origin

CTN	SITC
500	242, 2431
50001	2422
50002	2424
50004	2421
50015	2431
501	2432, 2433
50101	24321
50201	6312
50205	63121
50501	2512
50502	2518
50501	2512
	2518
50502	2517
50504	2519
506	6411, 6412, 6413, 6414, 6415, 64191 64192, 64193, 64195, 64197, 64294
50601	6411
50632	6413
5063204	6413
50636	64191
507	6415, 6417
50702	6415
50801	64211
50803	64191
50815	58131
51001	2631, 2633
51002	2632
51004	2651
51005	2651
51007	2652
51009	65151
5101301	2651

CTN	SITC
511	2621, 2622, 2623, 2626, 2627, 2629
51203	2612
51301	26621
51302	26621
51304	2664
51307	2633
5140104	65161
5140105	65121
51402	65161
52	212, 613
5205001	212
53001	2111, 2112, 2119
53102	61191, 61192, 61193, 61194, 61195
53199	61199
55	2925, 29269
560	29198, 5511
563	2924
56301	29291
5632301	2924
57301	51226
59001	29192
59009	29193
59014	58191, 59953
59101	62104
59102	64299
59209	65583
5923504	65583

CTN 6 Live Animals Not for Slaughter

CTN	SITC
601	9410
60103	9610
6090102	9410

CTN 7 Raw Materials for the Production of Foodstuffs

CTN	SITC
700	041, 043, 044, 045
70001	041
70002	0451
70003	043
70005	044
71004	0015
72005	2218
72103	07232
72104	0741
72301	0619
72302	59951
72303	0615, 0619
72401	4111, 4312
72406	01189
726	121
72905	0482
72906	1124
72916	05483

CTN 8 Foodstuffs

CTN	SITC
80001	011
80002	0114
80101	023
802020	0222
81005	0311
811	0312
813	03201
81302	03201
81501	03202
816	03201
81601	03201
81602	03201
818	0313, 03202
82001	04601
82102	0542
82104	0542
83205	0512
83210	0514
83302	05203
83502	05172
83804	0551

CTN	SITC
931	85101
93905	85102
94	6651, 6652, 6664, 69606, 6972, 8930
941	6664
960-962	5163, 5414, 5417
967	5411
97	5714, 6291, 63273, 63289, 64193, 6422,
84001	0612
841	421, 422
84109	4216
850	111, 11212, 1122, 1123, 1124
85001	1124
8510302	1222

CTN 9 Industrial Consumer Goods

CTN	SITC
900	652, 65546
901	6532
902	65311, 65351, 65353
903	65331
904	6575, 6576, 6577
90904	65352
91	6566, 65691, 8411, 8413, 84121, 84142, 84143, 84144, 84151, 84153, 84159, 842
910, 913	84111, 84112, 84113
912	84159, 842
914	84143, 84144
91504	65691
916	84142
917	84151, 84152, 84153
91907	65661
922	69603, 6985, 72504, 89934
9220106	69603
923	8310
930	85102

	6423, 64293, 64299, 65405, 65406, 6562, 6652, 6951, 69523, 69604, 69711, 69712, 69721, 69811, 69812, 71712, 7173, 71931, 71941, 7198, 7222, 7241, 7242, 7249, 72501, 72502, 72503, 72505, 7292, 72999, 73291, 73292, 73311, 73312, 7334, 7335, 81242, 81243, 86122, 86131, 8614, 8615, 86161, 86169, 86301, 86309, 86411, 86429, 8911, 8912, 89141, 89142, 89181, 89182, 89183, 89184, 89185, 89211, 89213,8923, 89293, 89299, 8941, 89422, 89423, 89424, 89431, 89441, 89442, 89601, 89914, 89921, 89922, 89997
970	71231, 7173, 7241, 7242, 725, 72501, 72502, 72503, 72505, 73291, 7331, 7334, 8614, 8615, 86161, 86411, 86429, 8911, 89185, 8941
97006	73311
97011, 97046	86411, 86412
97013	8614
97014	86161
97017	7241
97015	7242
97025	7242
97027	89111
97028	8615
97042	89111
97401-97404	89211, 89213
97405	89293
975	8912, 8914, 8918
976	5714, 6562, 7355, 86122, 86131, 89424, 89431, 89441, 89442
977	63273, 65405, 65406, 89421, 89422, 89423, 89914, 89921, 89922
97801	86309
98104	27694
98105	89917
98908	89932
9899901	89935

APPENDIX C

Regression Results

Simple regression models were estimated for Soviet trade with the nine Western countries by regressing Soviet data for 1960-75 on corresponding Western data. Parameter estimates were obtained by ordinary least squares except where the Durbin-Watson statistic indicated the presence of serial correlation. A first-order autogressive scheme was assumed in these cases and generalized least squares was then used to estimate the parameters.*

The sample regression lines fit the observed data quite well. The adjusted coefficients of determination for all the equations were greater than 0.9 except for Soviet exports to the Netherlands, which had a value of 0.84 (see tables for the regression equations and the appropriate statistics).

The predictive power of the model was generally good. Forecast errors for 1974-75 were obtained by comparing forecasts of Soviet trade that were calculated by regressing the equations over a shorter sample period (1960-73) with actual data. Because of the sharp rise in Soviet export prices, 1974 and 1975 cannot be considered typical years, however. The increase in prices narrowed the gap between

Deviation of Forecast from Observed Values[1]

Percent

	Soviet Exports		Soviet Imports	
	1974	1975	1974	1975
Total	-4.6	-1.5	-1.6	-0.8
United States	30.1	16.5	-7.6	2.2
Belgium-Luxembourg	-2.7	25.8	-3.8	-6.9
Canada	-37.5	-28.2	-53.8	-24.0
France	-4.5	-4.3	0.5	11.2
Italy	-13.1	-16.7	-4.9	2.4
Japan	-6.2	-0.6	11.0	-3.5
Netherlands	42.6	129.9	12.3	57.6
United Kingdom	-9.3	-3.7	2.0	-5.3
West Germany	-1.1	-5.2	-7.1	-4.2

1. $\frac{\text{(Forecast values - observed values)}}{\text{Observed values}} \times 100$

* See J. Johnson, *Econometric Methods*, 2d edition, New York; McGraw Hill Book Company, 1963, pp. 208-213.

Soviet exports and Western imports, so forecast values generally tend to be on the low side.

Although total Soviet exports and total Soviet imports can be projected fairly well on the basis of Western data, the forecasts of bilateral trade are sometimes poor. In these instances the changing relative importance of reexports and special circumstances involving grain and oil are usually at fault—as explained in the country sections, above.

Soviet Exports to the Nine Western Countries, Western Imports

$$\hat{Y}_i = -190.39 + 1.00\,X_i$$
$$(31.49)\quad (0.01)$$

Adjusted R^2		0.9980
Mean Square Error		4739.802
Durbin-Watson Statistic		1.8688
Standard Error of the Estimate		73.5997
T Statistic	-6.0468	86.0722

Soviet Exports—US Imports

$$\hat{Y}_i = 12.64 + 0.69X_i$$
$$(3.84)\quad (0.03)$$

Adjusted R^2		0.9728
Mean Square Error		111.8901
Durbin-Watson Statistic		2.0414
Standard Error of the Estimate		11.3082
T Statistic	3.2949	23.1730

Soviet Exports–Belgium-Luxembourg Imports

$$\hat{Y}_t = 1.30\,X_t \quad (0.05)$$

Adjusted R^2	0.9611
Mean Square Error	482.7558
Durbin-Watson Statistic	1.5657
Standard Error of the Estimate	22.6923
T Statistic	28.4798

Soviet Exports–Canadian Imports

$$\hat{Y}_t = 1.30\,X_t \quad (0.097)$$

Adjusted R^2	0.9065
Mean Square Error	13.6000
Durbin-Watson Statistic	2.1007
Standard Error of the Estimate	3.8088
T Statistic	13.3832
Autocorrelation Correction Parameter	0.5718

Soviet Exports–Italian Imports

$$\hat{Y}_t = -46.85 + 1.05\,X_t \quad (9.76) \quad (0.03)$$

Adjusted R^2		0.9909
Mean Square Error		430.0155
Durbin-Watson Statistic		2.0118
Standard Error of the Estimate		22.1686
T Statistic	-4.8001	40.4791

Soviet Exports–Dutch Imports

$$\hat{Y}_t = 1.83 X_t$$
$$(0.13)$$

Adjusted R^2		0.8404
Mean Square Error		3271.6070
Durbin-Watson Statistic		1.1418
Standard Error of the Estimate		59.0738
T Statistic		13.8908

Soviet Exports–West German Imports

$$\hat{Y}_t = -66.35 + 1.03 X_t$$
$$(13.63) \quad (0.02)$$

Adjusted R^2		0.9966
Mean Square Error		403.3513
Durbin-Watson Statistic		2.1150
Standard Error of the Estimate		21.4703
T Statistic	-4.8675	50.9434
Autocorrelation Correction Parameter		0.6103

Soviet Exports–French Imports

$$\hat{Y}_t = -27.84 + 0.93 X_t$$
$$(5.63) \quad (0.01)$$

Adjusted R^2		0.9977
Mean Square Error		63.1005
Durbin-Watson Statistic		2.0265
Standard Error of the Estimate		8.4920
T Statistic	-4.9467	62.0188
Autocorrelation Correction Parameter		0.5749

Soviet Exports–Japanese Imports

$$\hat{Y}_t = 0.81 X_t$$
$$(0.008)$$

Adjusted R^2	0.9964
Mean Square Error	361.3969
Durbin-Watson Statistic	2.7312
Standard Error of the Estimate	19.6339
T Statistic	103.1318

Soviet Exports–UK Imports

$$\hat{Y}_t = 0.92 X_t$$
$$(0.01)$$

Adjusted R^2	0.9869
Mean Square Error	613.7556
Durbin-Waston Statistic	1.7397
Standard Error of the Estimate	25.5866
T Statistic	72.9887

Soviet Imports from the Nine Western Countries
Western Exports

$$\hat{Y}_t = 67.83 + 1.05 X_t$$
$$(22.13) \quad (0.005)$$

Adjusted R^2		0.9997
Mean Square Error		1744.3965
Durbin-Watson Statistic		1.8699
Standard Error of the Estimate		44.6497
T Statistic	3.0655	191.2831
Autocorrelation Correction Parameter		0.4354

Soviet Imports–US Exports

$$\hat{Y}_i = \underset{(0.01)}{1.12X_i}$$

Adjusted R^2	0.9975
Mean Square Error	781.9708
Durbin-Watson Statistic	1.6664
Standard Error of the Estimate	28.8808
T Statistic	91.5458

Soviet Imports–Dutch Exports

$$\hat{Y}_i = \underset{(6.75)}{18.00} + \underset{(0.09)}{1.08X_i}$$

Adjusted R^2		0.9141
Mean Square Error		288.7771
Durbin-Watson Statistic		1.5120
Standard Error of the Estimate		18.1668
T Statistic	2.6656	12.6730

Soviet Imports–West German Exports

$$\hat{Y}_i = \underset{(0.01)}{0.96X_i}$$

Adjusted R^2	0.9974
Mean Square Error	1294.1192
Durbin-Watson Statistic	2.6856
Standard Error of the Estimate	37.1537
T Statistic	97.2505

Soviet Imports- French Exports

$$\hat{Y}_t = 42.76 + 0.97\,X_t$$
$$(10.94)\quad (0.03)$$

Adjusted R^2		0.9882
Mean Square Error		821.5682
Durbin-Watson Statistic		1.2486
Standard Error of the Estimate		30.6420
T Statistic	3.9072	35.4598

Soviet Exports–Belgian-Luxembourg Exports

$$\hat{Y}_t = 1.17\,X_t$$
$$(0.02)$$

Adjusted R^2	0.9964
Mean Square Error	58.2631
Durbin-Watson Statistic	1.1497
Standard Error of the Estimate	7.8834
T Statistic	62.5559
Autocorrelation Correction Parameter	0.7806

Soviet Imports–Canadian Exports

$$\hat{Y}_t = 1.28\,X_t$$
$$(0.05)$$

Adjusted R^2	0.9443
Mean Square Error	1379.1368
Durbin-Watson Statistic	1.2025
Standard Error of the Estimate	38.3547
T Statistic	25.8821

Soviet Imports–Italian Exports

$$\hat{Y}_i = \underset{(0.01)}{1.09}\, X_i$$

Adjusted R^2	0.9955
Mean Square Error	311.0735
Durbin-Watson Statistic	1.4659
Standard Error of the Estimate	18.2157
T Statistic	84.6708

Soviet Imports–Japanese Exports

$$\hat{Y}_i = \underset{(0.02)}{1.03}\, X_i$$

Adjusted R^2	0.9940
Mean Square Error	1045.6380
Durbin-Watson Statistic	2.6361
Standard Error of the Estimate	33.3968
T Statistic	68.1751

Soviet Imports–UK Exports

$$\hat{Y}_i = \underset{(0.02)}{1.07}\, X_i$$

Adjusted R^2	0.9818
Mean Square Error	170.4983
Durbin-Watson Statistic	1.2186
Standard Error of the Estimate	13.4857
T Statistic	67.8946